Rural Cemeteries, No. 3. Conclusion.

"Man is a noble animal, splendid in ashes, and pompous in the grave, solemnizing nativities and deaths with equal lustre, not omitting ceremonies of bravery in the infamy of his nature."—Sir Thomas Browne.

THE great difficulty experienced by planters of individual cemetery lots, is in their want of knowledge as to plants that will succeed in particular situations. Many lots are in shade either totally or partially; to place roses in such spots, would be sure to be attended with disappointment, while, with a proper selection of shrubbery, success would be insured. Our list, as in the former number, is not complete, but will prove suggestive to lot-holders in cemeteries as well as for private gardens.

LIST OF SHRUBS AND PLANTS THAT SUCCEED IN THE SHADE.

Rhododendrons and *Kalmias*,
The Belgian Azaleas,
The Hollies,
Hemlock,
Aucuba Japonica,
Dwarf Horsechestnut,
Box-Trees,
Stuartia's,
Yews,
American Arbor Vitæ,
Siberian " "
The Chinese will not succeed.
Dogwoods; the *Sanguinea* is very ornamental and suitable.
Snowberries,
Junipers,
Euonymus Japonica,
Privet,
Clethra Alnifolia,
Spice Wood,
Hawthorns,
Hydrangea,
Lily of the Valley,
Periwinkle,
Ivy and Ferns,
Mahonias,
Daphne Pontica,
Wild Violets,
Hemerocallis,
Anemone Pennsylvanica.

Monuments.—With regard to the material of which monuments may be constructed with a view to durability, it is acknowledged that the best sandstones are every way suitable. They should be made of the compact, fine, light colored kinds, in order that they may be easily worked into form as sharp and delicate as marble itself. The stains of weather, and the falling of leaves, would not disfigure them. Granite we have already indicated, but *Bronze* is better adapted to statues and reliefs, as well as to vault entrances, than any other substance, and is as enduring as could be desired. In Greenwood Cemetery, New York, there are several good examples, especially the monument to De Witt Clinton, executed by Brown, an excellent artist of that city, who works in bronze equal to any European. Effigies are particularly suitable in this material, and we hope to see it much more generally employed, as it unquestionably will be; this is the enduring and yet plastic material so much wanted.

As it is not to be expected, however, that we shall very soon give up the best marble, this should be protected by a canopy or temple. In the continental cemeteries, it is usual for a portion of the ground to be appropriated for sculpture, by the erection of covered ways for numerous families who patronize the fine arts; such may be seen at Frankfort on the Maine, where we especially remember the temple of the Bethman family, occupied by some of the finest statuary of Thorwalsden.

While we write, a very sensible little volume has been laid on our table, entitled "Hints concerning Greenwood, its Monuments and Improvements, by N. Cleveland," from which we make a few brief extracts to the point :—

"*Symbolic Devices.*—Symbols, in monumental sculpture, if happily conceived and well executed, are always gratifying. The rareness of success shows the difficulty of the undertaking. On the other hand, in no department of art, perhaps, is failure so glaring or so shocking. It is painful to be forced to smile at objects which are designed, and which ought to compose and to elevate our thoughts. Let the man who contemplates such a work, remember that he is about to invite scrutiny, and to challenge criticism. Let it be well considered, lest, peradventure, he record some expensive folly, in a material whose durability would then be its greatest objection. Such a work should call into requisition the choicest talent and the highest skill. Genius and piety should furnish the design ; judgment and taste should superintend the task.

"On a point of this nature, our suggestions must, of necessity, be general. Not a few derive their symbolism from the ancients. The lachrymatory, the mutilated column, the inverted torch, are very frequent. To be classic is the highest ambition of some. With them, appropriateness and consistency are matters of small importance. Were there no other objection to the class of objects in question, it would, in my mind, be sufficient, that imitation and repetition are fatal to sentiment, and nullify, if they do not reverse, the intended effect. Let it also be considered that these symbols are pagan, not only in origin, but in purport. They are the mute language of a grief, to which consolation was unknown—the sad hieroglyphics of despair. They say nothing of faith, or hope, or immortality, or heaven. What have Christians to do with such emblems ?

"One other kind of mortuary memorial asks our attention, and it is the highest of all. I refer to personal representations in the form of statues and reliefs. These may be copies from nature, or ideal forms ; they may be human, angelic, or allegorical. They all belong to the province of sculpture, and many of her best triumphs have been won on this field. Would that it were far more common to resort to this mode of adorning the tomb and commemorating the dead.

"To those who have the desire and the means of securing these most beautiful and expressive of all memorials, our advice is summed up in a word : employ the sculptor. The term is sufficiently definite, and certainly does not include all who have learned to chip and hew in stone. Here, as in poetry, to fall short of excellence, is to be nothing, or worse. When commissions in sculpture shall be confined to able and educated artists, we shall, at least, be spared some gross absurdities. Cherubs, with babies in their arms, will no longer be seen in *downward* flight ; and marble seraphs will cease to *weep*, and *break their harps*, because a mortal has exchanged the woes of earth for heavenly bliss."

The danger incurred by copying other monuments, is set forth in the following passages :—

"In naming examples with commendation, let it not be imagined that we advise any to copy them. To this, there are weighty objections. Towards the sculptor or the architect who conceived the beautiful design, such a course is meanly piratical. It invades also the rights of the proprietor, who has paid liberally that he might have something peculiar and unique.

"A copy made by common workmen (and no others will attempt the wrong) is rarely successful. Often it is only a caricature. To copy is slavish, as well as mean. It discourages originality, and creates that monotony which is a positive vice in the province of taste. If you see a design which you like, apply to the artist who produced it. If he deserve the name, he will give you, not a repetition

of his own idea, but another conception, perhaps a happier one. Surely this is far more honorable than the course of those who employ mere artisans to steal the property of genius."

Enough has been said, perhaps, to convey leading ideas on this interesting topic, and though the subject is by no means exhausted, we shall not detain the reader much further than to remark, that simply to designate the boundaries of lots by stones, six or eight inches high, at each corner, with the name or initials of the owner, so that the grass may be mowed uniformly, may be sufficient where a hedge is not desired; to plant no *large* trees in *small* lots; to avoid straggling shrubbery, or anything that throws up suckers; to eschew poor iron railings or tawdry monuments; in short, to improve *durably* rather than superficially, for the present.

There is a subject connected with the interment of the dead, in this country, which it will be proper only to allude to in a journal like the present. It is one to which our advancing civilization and increasing population will, ere long, command attention. We mean, the right of control over the remains of deceased persons. It has been generally conceded, that it exists in the nearest relative, and to that individual it is supposed the power attaches of giving an order for removal from one spot to another. We know of no law in practice which says how this shall be regulated; the practice, in fact, is loose in the extreme. Almost any individual, in our great city, may go to the Board of Health, and receive a "permit" to remove the body of any other person from one grave to another, or from one cemetery to another, and the nearest relative may never hear of the circumstance. It is true, cases where improper motives may exist for such improper interference are rare, but still, they may and do occur. The Board of Health, itself irresponsible, gives very little attention, if any, to the matter; the permission is granted as a matter of course, without due inquiry, and the deed is done without any official having had the slightest evidence of the nearness of relationship, or of the right to interfere. At least, such was the loose system when the writer was formerly a member of the Board.

In Europe, especially in France, every check is placed upon irregular action in this matter. Offices exist to which application must be made before any person can take an initiatory step in such a proceeding, and any one attempting such an act is dealt with as a felon. It appears to us, that no removal should be allowed without minute scrutiny as to the right to the possession of the deceased, and that wise legislation must sooner or later be introduced among us to insure the proper respect for the cherished remains of mortality. The first steps have been taken for this purpose, by the formation of rural cemeteries; it would be completed by attention to the point we have indicated.

With these remarks we conclude our own experiences, for the present, with the single additional suggestion, that whatever the improvements may consist in, high keeping is one of the most essential parts of the management of rural cemeteries. The roads and walks must be regularly and carefully attended to; the grass should be cut early and frequently; weeds and brambles of all kinds should be exterminated as soon as they appear, never being allowed, on any account, to scatter their seeds. Iron railings *must* be regularly painted with good materials, if they are desired to be even temporarily what they were designed to be. It should be the duty of the Superintendent, or an assistant, to pace every walk daily, with a basket, to pick up the loose papers which visitors, and children especially, are so apt to unroll from their eating stores, and throw carelessly about; to trim off a dead limb or branch whenever it appears, and generally to exercise those duties which a *good eye* for all that is neat so readily learns to understand; without this

care, the visitor and lot-holder will often have their feelings pained; with it, and with attention to what we have already enforced, a rural cemetery serves more to console the bereaved than volumes of poetry, or cold dissertations on the duty of resignation.

CHERRIES—THE KNIGHT'S EARLY BLACK.*

BY P. BARRY, ROCHESTER, N. Y.

In all parts of the United States where the free growing sorts of cherries, classed under the heads of "Hearts," and "Bigarreans," succeed well, the Early Black of Knight proves to be one of the very best of all the black varieties. I think it superior to the Black Tartarian in flavor, equally productive but less rapid and symmetrical in its growth. It is as good as the Black Eagle, and more productive.

It entirely supersedes the old Black Heart and several varieties of it that are in cultivation. The tree is hardy for its class, a moderate grower, forming like the Black Eagle a *round* regular head. The fruit, when well ripened, is nearly black, with that uneven surface which characterizes the Black Tartarian. The flesh or pulp is rather firm, deep purple, abounding in rich high flavored juice.

Ripe here, lat. 43°, usually first week in July; this season being late, 12th to 15th July. When I say *ripe*, I mean *fully* ripe, not *half* ripe, as cherries are usually picked and sold.

It is said to be, in common with the Black Eagle and Elton, a cross of Mr. Knight's, between the May Duke and Bigarrean or Yellow Spanish, but I have still doubted this. The Black Eagle and this variety are evidently from the same parents, as both trees and fruit have many common characteristics, but the Elton, as almost everybody knows, is altogether different. The tree in vigor, habit of growth, foliage, and *all*. The fruit in shape, color, flavor, and almost everything. My impression is that Mr. Knight, who was not infallible, any more than you or I, made a mistake here, and that the Black Eagle and Early Black were produced by a cross between the Bigarrean and Black Tartarian.

This, however, is a matter of little importance to the cultivator, but it claims the attention of the pomologist, and I take this occasion to throw out the hint.

You will know by this time that the fruit growers of Western New York had a very interesting meeting at Syracuse, on the 27th and 28th days of June. *The Country Gentleman*, of the 10th July, contains a very good notice of the main points of proceedings.

Touching the subject of cherries, however, I find one branch of the discussion omitted; that was the *best soil*.

The great cherry difficulty in the West is a malady known as the *Gum*. Very little of it has been seen in Western New York, but the evidence adduced by cultivators at the meeting above referred to, rather proved that this disease was most prevalent in light sandy soils, and least so in strong and rather stiff gravelly loam. I think this is worthy of note as tending to show that this disease has its origin more in the soil than in climate. It agrees in the main with my own experience.

The Reine Hortense grows in favor, for although it is a moderate bearer, yet the fruit is so large, beautiful, and refreshing, having just enough acid, and the tree so hardy, belonging to the "Dukes," that it seldom fails to reward the cultivator. For the West, where only *very* hardy sorts can be grown, the Louis Phi-

* See Frontispiece.

lippe, a sort of early Morello, ripe July 10, will be found a great acquisition, I believe.

It is nearly as large as May Duke, round deep red, acid but mild and very rich, as a kitchen and preserving fruit it is certainly first rate in its season. The Royal Duke is another noble fruit of the hardy sorts. Donna Maria, is earlier than any of these, and also valuable, of the Morello class.

The Monstreuse de Mezel is a magnificent fruit of the largest size, but an awkward tree. Governor Wood stands unrivalled among the sweet light red sorts of free growth.

Mr. Chas. Downing brought some of the great Bigarrean from West Chester half ripened, to Syracuse; they were on the branches, and gave evidence of great productiveness and size.

Mr. D. recommends it highly; he says he would have it in a small collection of six sorts. We have a bearing tree, but the crop this season was light and not promising, compared with others beside it. The tree evidently wants age. I might spread this cherry gossip over several pages more, but this is enough for the present. I will only add, that cherry-trees suffered much here during the two winters last past. Last winter the mercury was down to 10° or 12° below zero for many days, with a high wind blowing. A very small crop of fruit set, generally, and the trees for a long time looked ragged; for a long time the fruit did not promise to obtain more than half size, but the weather was favorable in June, and most varieties came fully up to the usual standard. Knight's Early Black I think finer than I ever saw it, though a week later.

VISITS TO COUNTRY PLACES, No. 3.

ABOUT NEW YORK. THE NORTH RIVER.

As one must leave the concert and the ball to see the charm of domestic life and society, and to view the hallowing influence of woman's devotion at the bedside of the sick and the dying, so we must desert the highways of travel to enjoy, or even to know of the many delightful retreats, the ornate mansions and grounds, which have grown up during our late periods of prosperity in most parts of the Union, where as much of the paradise with which man began his career is re-established as his fallen nature will permit. It has been our good fortune to revisit many such favored spots of late, and to discover new beauties and additions created by the hand of taste.

Wodenethe, the seat of Henry Winthrop Sargent, Esq., near Fishkill Landing, Dutchess County, N. Y., was our *point d'appui* for the region of the North River. The railroad which scours the borders of this American Rhine affords opportunity for excursions, above and below, of such facility that you make engagements for a dinner party sixty miles off, if you choose, even months beforehand, with as much certainty of meeting at the hour named as we formerly felt in crossing a street. Mr. Sargent is perfectly at home in all this region, and we found his arrangements for the enjoyment of our little horticultural party perfect; every day brought its new and delightful scenes, we must say, unrivalled for beauty, ready prepared for the enjoyment of elegant leisure.

Wodenethe is Mr. Sargent's own creation. Prepared by foreign travel and residence in the finest parts of Europe, and with a native taste for rural life, Mr. Sargent procured a spot of extraordinary beauty, nearly opposite to Newburgh, and began his operations of building and planting about the same period, or a

year or so later, with Downing; their friendship was such as poets sing, and dramatists attempt to portray. Mr. Downing's leisure moments were never more thoroughly enjoyed than when pacing with his host around the new grounds, suggesting an effect here, an opening vista through yonder lofty grove, or advising about the hothouses and graperies, their contents and government. These scenes we well remember; their recollection is a bright spot in the wastes of life.

When *Wodenethe* was purchased in 1841, the ground, as its name indicates, was finely wooded.* White oaks threw their giant arms about, and the wild blackberry was the only edible fruit. Mr. Sargent has made it "a wilderness of beauty;" it blossoms with the rose; the foreign evergreens dispute their sway with the old forest, which has been very gradually yielding its inferior specimens to more ornate native or foreign foliage. Mr. Sargent is, by general consent, our "tree-taster," as Mr. Reeves, of spiræa memory, was tea-taster to the East India Company, with the difference that Mr. Sargent administers only to our mental enjoyment. His evergreens are specimen trees, collected at great cost and labor from every region; this was attended, of course, with a thousand failures, but these are not now apparent; all that you see is in perfection. Those portions not hardy have disappeared, and are replaced by more constant friends. The place is a model of landscape gardening; shrubs and trees appear just where they are wanted; the lawn is a carpet of exquisitely kept verdure, mowed every week or ten days with Shank's lawn-mower, an improvement on the English machine, made by Mr. Sargent's neighbor, H. N. Swift, an ingenious mechanic, whose inventive talents have introduced him to a large business in this manufacture. We have seen many of his machines in use in various places, and are free to say that we saw but one lawn, that under the care of Mr. Chorlton, on Staten Island, that was perfect without Mr. Swift's invention. The machines are of three sizes; that for one horse cuts a width of thirty inches; the pony size twenty-four inches; that drawn by two men sixteen inches; and one which a single man draws, and which is used to cut narrow borders, verges, and among and around shrubbery and clumps, has a width of thirteen inches. It cuts, picks up the grass in a box, and rolls the surface at the same operation, and saves an incredible amount of labor. At Wodenethe, the entire lawn, between two and three acres, is cut, gathered up, and rolled in one day, between seven in the morning and sundown; cut, too, in a way that no mower could cut and gather, and which could not be done unless swept, as in England; since, the lawn being cut once a week, the grass rarely is over half an inch to one inch long, and, of course, could not be lifted up by the ordinary lawn-rake. The largest size (horse) machine is used here, with one boy to ride the horse, another to guide the machine. This same lawn formerly occupied two men *nine* days, not mowing between ten and four.

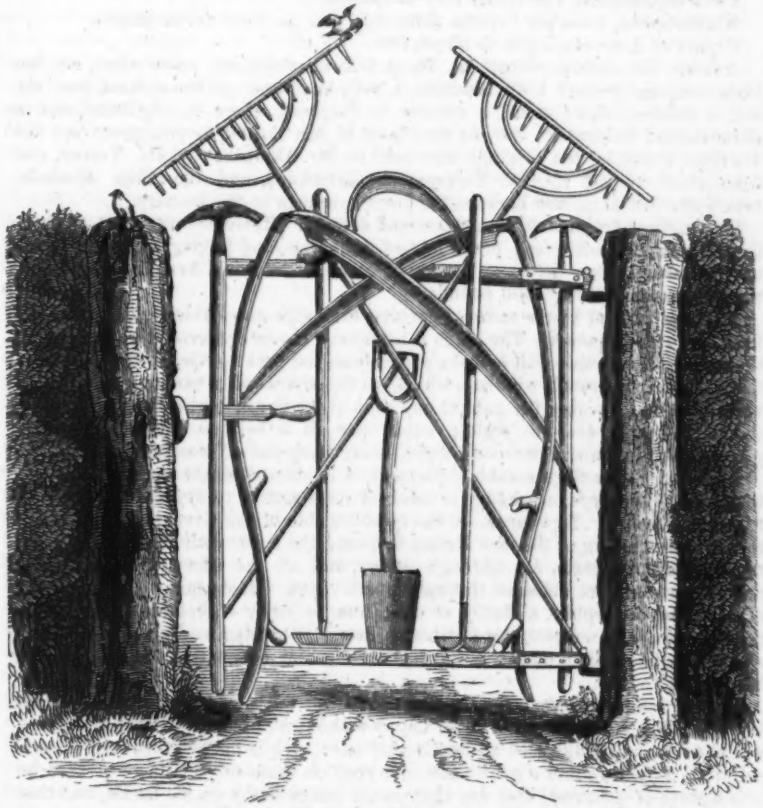
At *Wodenethe*, you encounter beautiful specimen trees at every turn. Among the deciduous kind that struck us most for their novelty and beauty were the cut-leaved and fern-leaved beeches, the former six feet and the latter ten feet in height. These truly ornamental trees should be placed in every plantation, as also the cut-leaved horse-chestnut, cut-leaved ash, and cut-leaved linden, all of which at Wodenethe, being planted near each other, form a curious and interesting group.

Mr. Sargent has also produced another pleasing effect by grouping the weeping beech, weeping ash, weeping birch, weeping mountain-ash, weeping cherry, the weeping sophora, the weeping linden, and the weeping larch, the latter a very fine specimen, twelve or fourteen feet high, and a new beautiful weeping thorn.

As an evidence of the taste which governs the minutest improvement here, we

* Wodenethe being composed of two Saxon words—*woden*, *ethe*, woody promontory.

insert a picturesque gate, from a design by Mr. Sargent's father, an amateur painter of great merit, whose beautiful productions adorn the walls of *Wodenethe* mansion, together with many rare specimens and statuary from European masters.



Ornamental Garden Gate at Wodenethe, the residence of H. W. Sargent, Esq.

A curious effect is produced by the mingling of variegated and particolored, trees, such as the variegated or silver-striped chestnut, the silver and variegated elm, the silver variegated thorn, the golden-blotched maple, and a very curious ash, the aucuba folia, with leaves as marked as the Japan gold-dust tree. These, mixed with the purple beech, the copper beech, the purple elm, purple berberis, and purple filbert, the darker colors presenting themselves first, and gradually blending off into the brightest, produce a very curious effect. The evergreens predominate, and make both the winter and the summer scene delightful.

The Pinus excelsa, or the Bhotan pine, has attained here the height of twelve feet, and fully justifies Mr. Downing's description, "that affectedly pretty" pine.

Pinus ponderosa, twelve feet, though only six years from the seed. This is a

very striking and rampant grower, though too loose in its habit to be very handsome.

Picea pinsapo, six feet.

Picea cephalonica, eight, and very handsome.

Nordmaniana, from the Crimea, three feet, and the finest of the piceas.

Cedars of Lebanon, eight to fifteen feet.

Among the curious evergreens, Thuja filiformis (weeping arbor vitæ), six feet high, weeping juniper, both beautiful, a very handsome golden-striped yew, six feet, a golden-striped cedar, a novelty in England, where it originated, and a silver-striped Balsam fir; but the two finest of Mr. Sargent's evergreens are the Torreya Taxifolia, the original tree sent to Mr. Downing by Dr. Torrey, and from which all the English Torreyas are descended, and the *Abies Morinda, twenty-five* feet high, and perhaps the finest specimen in this country.

The gardens are models of neatness and success. There are 2000 feet of espaliers for trained fruit-trees; peach houses, graperies, and forcing houses all in the neatest order. Two thousand pounds of grapes were raised here in one season, the average crop being 1000 pounds.*

We were amused by the mode of opening the lodge-gate, which is accomplished in the following manner: The lodge is set upon a Ha-ha or terraced wall adjoining the gate; *through* this wall a chain passes from the gate to the living room, and there secured to a small windlass, which, on the arrival of a carriage, is instantly wound up, thus opening the gate at any hour of the day or night without exposing the lodge-keeper even to sight; when open, it is held so until the carriage passes, when it shuts of its own weight, being hung out of plumb.

In short, *Wodenethe* is a cabinet picture; in landscape effects perfect. Though the place is not large, advantage is taken of its situation to *appropriate* the surrounding scenery. Newburgh, on the opposite side of the river, lies at your feet through an opening of the new Italian *balcone;* the river, with its moving panorama of steam-vessels, &c., through others, and all the effects of a large and magnificent park are obtained through superb vistas. Every luxury, a fine library of new and old books, a family of education to enjoy it, botanical riches, and never-ceasing amusements, which "books, friends, a garden, and perhaps his pen" afford, the hospitable owner never lacks congenial occupation, and, of course, happiness.

Depend upon it, there is no success can attend those who sit down in idleness *to enjoy their money.* Man is never happy without a pursuit, and when his means will allow it, he should seek an intellectual one; such is horticulture and arboriculture. When we find a gentleman well read on these subjects, we feel sure he is in a state of progress, that his time never hangs heavy on his hands, and that he has something to show for his intelligence. We are free to confess that we deem this class to be the happiest Americans we know:—

> "All, wherever in the scale,
> Have—be they high or low, or rich or poor,
> Inherit they a sheep-hook or a sceptre—
> Much to be grateful for; but most has he
> Born in that middle sphere, that temperate zone,
> *Where knowledge lights his lamp.*"

* There are several interesting points about Mr. Sargent's management of his grounds and graperies. In excavating for the house, the earth was made into an irregular mound; on this a rustic summer-house of great beauty has been erected, and the whole is overrun with Bignonias, Wistarias, Cobeas, &c., &c. In the grapery, where the border extends inside, mushrooms are successfully grown; they are picked every morning through the slats used for walking on, thus forming a successful and economical "mushroomery."

A thorough inspection of the best country life in America will convince the unprejudiced that we have among us a class of thoroughbred gentlemen, who reside on their acres from the enjoyment they derive from it. They are not drinkers, as of old, for want of occupation, nor gamblers to get rid of their time, but intellectual, literary, or scientific. They enjoy society when they are in it because their reading qualifies them for it, but they are at no loss when their places and their books are alone accessible. Such a class is already among us, formed of individualized men, with rational pursuits and healthy frames, ready to do good service at home, and when abroad creditable specimens of high-minded Americans. They have something better to do than the European mere gentleman, whose chief boast is that he is a sportsman, for they find more useful and congenial occupation in superintending their gardens, and farms, and their cattle; their planting is a never-failing resource; fruit in and out of season you are sure to find in plenty; they are as familiar with Loudon and Downing as the shopkeeper with his Ledger or Herald, with this advantage, that while thoroughly posted on foreign and home politics, they understand something besides; they are familiar with the physiology of botany, and can tell you the composition of their soils. Who, of our readers at least, would hesitate which class to prefer?

We could stop to descant more largely on *Wodenethe*, but other places have claims to our attention; we leave it with regret, and yet with satisfaction at the thought of America's rearing more specimens like it, and educated men to usefully employ the time that is given them.

Mr. Sargent's appropriation of scenery is completed by his having a good neighbor in *Charles M. Wolcott, Esq.*, whose place, *Roseneathe*, adjoins, and is only separated by ornamental plantations and iron fences; these are so contrived as to appear to give the surrounding grounds to both parties, which, in fact, they do, for the walks lead through gates always unlocked, and each family is free to the possessions of the other. Mr. Wolcott has also adorned his beautiful spot with rare and fine trees, masses of evergreen shrubs, his Rhododendrons, Azaleas, and Mahonias, &c. &c., being perhaps as successful as any we have seen in this country, and his lawns, with their beautiful views of river and mountain scenery, are kept in excellent condition. His graperies, greenhouses, and gardens are on an extensive scale, and the whole, including the house and grounds, is supplied with water by a steam-engine of simple construction placed in a building attached to the propagating house, and which at the same time heats his greenhouse, and forces water to his reservoir. We know of no two adjoining places in better keeping than these, and could wish that some spots we wot of in various parts of the country could and *would* take example here, and "pattern accordingly." Repose and leisure are turned to good account; life is added to amazingly by such elegance and neatness. The "happy valley" seemed to us no longer a dream for those who, unlike the artist, would be contented not to add waxen wings to their earthly bodies, and seek impracticable and useless flights. In the comparatively small space of, we believe, only sixteen acres, Mr. Wolcott comprises every attribute of a country place, several lawns, each one a distinct feature from the other, an English flower garden, a most successful vegetable garden, greenhouse, grapery, a forcing-house, the most charming views, and no apparent boundary but the river and mountains.

THE SO-CALLED "BLEEDING OF TREES."

CONSIDERED AS A MEANS OF INDUCING THEIR EARLIER PRODUCTION OF FRUIT.

BY HERR VON WINTERFELD.

THIS bleeding of trees consists in the division of the bark parallel to the longitudinal fibres of the stem, and downwards throughout its entire length. This operation is to be undertaken in the spring, or in the commencement of summer. The bark at the tree is to be divided, with a sharp knife, entirely through, down to the young wood, taking care, however, not to wound this latter; and these slits are to be made parallel to each other, and at greater or less intervals around the entire circumference of the trunk, extending downwards to the surface of the ground. By this means the growth of the wood is much encouraged, from the fact that the external bark of trees being dead, the growth of parts is restrained, and the growth of wood and consequent increase of the stem arrested till nature shall have overcome the hindrance offered by the external layer of bark, bursting it, as may be seen in all old fruit trees.

The following are the observations of the above-mentioned Herr Von W. :—

1. "Bleeding" is an effectual method to induce bearing within from two to three years on the part of trees which, from their age or nature, should have already borne, but have been prevented, either from excess or deficiency of growth.

2. The ordinary bearing time of trees is hastened by this method; that is, the time required ordinarily for the ripening of the fruit is shortened. In this, care must be taken not to expect impossibilities.

3. Those trees having little sap and a hard bark, must have these slits made close together, as near as one to every half inch of the circumference; those of a contrary description requiring only about four incisions for their entire circumference.

4. The most favorable time for this operation is in the early spring, as soon as the leaves have unfolded, and from this time until summer. It may be performed, however, even in the latter end of fall, when the leaves are beginning to drop off. It is better that this should not be done from the middle of June to the middle of July, in order to avoid the injury that may be inflicted by insects, that seek to deposit their eggs in the fresh wound.

5. The incision must completely divide the bark without injuring the wood, although a slight deviation from this rule will not do much injury in either case.

6. Trees already in bearing are rendered, by this operation, more fruitful.

7. Stone-fruited trees are not injured by this operation, as no effusion of gum follows.—Translated from the *Gartenflora Monatschrift, Von E. Regle, Erlangen, Feb.* 1856.

A FEW REMARKS ON THE CULTURE OF MIGNONETTE IN BOXES.

BY M. L.

MIGNONETTE is of the most simple and easy culture, but we seldom see it so managed as to look long, neat, and elegant; while, although it is but a simple flower, it is really kept elegant for a length of time when treated in the following manner :—

First with respect to box or window culture: I get some good compost, such

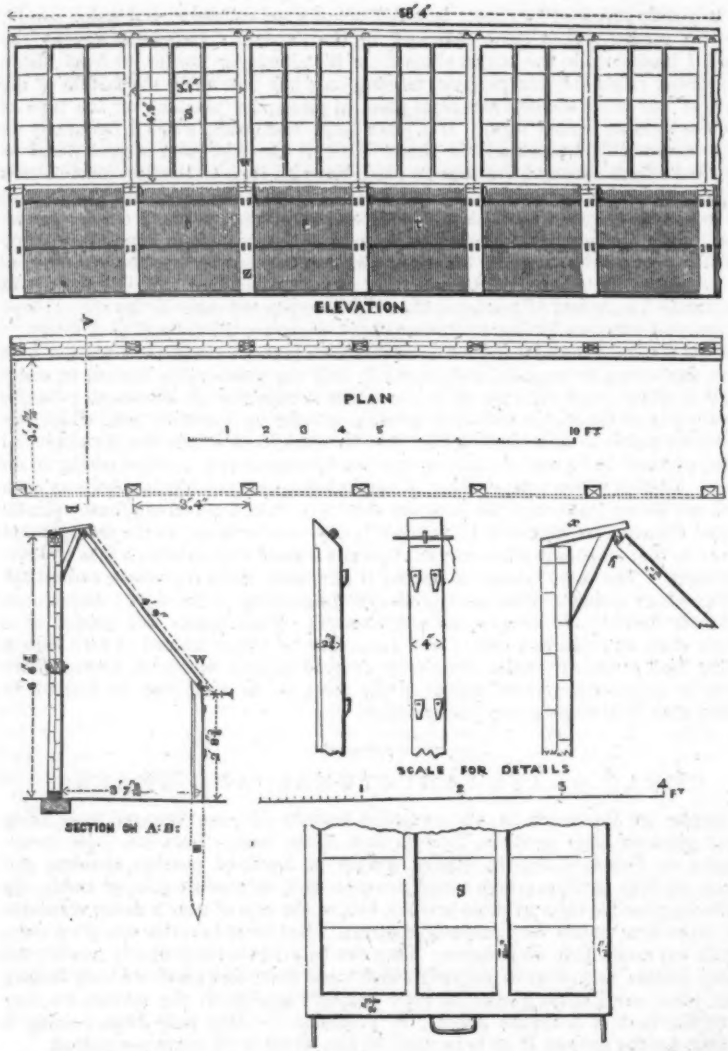
as is usually prepared for vines; or a mixture of good cucumber and melon mould, or rich garden soil, is quite sufficient for the purpose. Instead of sowing the seed, I transplant in the boxes, either from the clumps or border, or from plants previously raised for that purpose, forming only one row along the middle of the box, at four to six inches apart from plant to plant, and pinching off the tops of each as soon as I plant them. If I plant large specimens, which I frequently do very successfully, I pinch all the shoots back to the first joint of each; and as they push fresh shoots, I continue to pinch them all back to the first joint of each shoot, till the box becomes nearly full, or till I think I shall soon require them to be in bloom, when I stop them no longer, and allow them to shoot out for flowering. Still, I occasionally pinch them in so as to keep them in a judicious trim; and frequently thin out many branches, that they may not become too crowded, so as to weaken the plants, or endanger the stems by damping off. By the above treatment I have had Mignonette, that has been planted early in the spring, kept in fine and vigorous bloom, at the outside of windows, till the end of January.

This season, I sowed a good deal of this little favorite round the beds and borders, but owing to our cold, wet, clay soil, and the unfavorable season, in many parts it either never came up, or so weak that it dwindled off afterwards; but on some parts of the higher and drier grounds it came up tolerably well, which has given me plenty to transplant at this more favorable season into the less congenial soils, where it had gone off; and by my box treatment it is now promising to do well. Until it gets a proper vigor, I keep picking out the blossom-buds as soon as I can detect them, or pinch back the shoots, to make them strong, bushy plants. Those I leave after thinning I treat just in the same manner as the transplanted ones; so that one single plant only left becomes a much finer specimen than by leaving more. The usual manner of leaving it to ramble where it chooses, and all the plants which spring up from seed, is always disagreeable to the sight; and it soon exhausts itself by rambling seeds and blossom. Some plants are trained to a single stem, and tied to a stake; and these may be either trained to form into a bushy head at any convenient height, or spurred into the first joint, so as to have them in blossom the whole height of the stem, as far as it may be desired, in which state it is really a very pretty object.

CHEAP GLASS STRUCTURES, AND GRAPES.

THERE are thousands in our extended country who are deterred from using much glass on their grounds, through fear of the cost. They can enjoy strawberries in February, figs in March, grapes in April, or peaches, apricots, and plums, in May or June; they would not even care to give double or treble the ordinary price for them at these seasons, but, at the rate of near a dollar a mouthful, republican purses very properly contract. But these luxuries are often more within our means than we imagine. They can be produced in properly constructed cheap houses as well as in properly constructed dear ones; and we truly believe that, when our Yankee genius has been properly applied to the matter, we may have the best of hothouse grapes, in profusion, in May and June, coining a fortune for the grower, if he is in want of one, at 50 to 75 cents per pound.

We present herewith a plan of a cheap structure, which has been successfully employed, in Germany, for cultivating peaches, apricots, and grapes, as described in the London *Gardener's Chronicle*. It may not be exactly suited to our wants, but it will need very little modification. It may be remarked, that it is adapted only to cases where the fruit-trees are growing against a wall or fence:—



Explanation of the Figures.—The frame shown in the drawing, was placed against a wall of a new construction, and which has existed for more than twenty-five years. The wall is formed of a framework of oak, forming squares, in which are set on edge two courses thick of blue paving tiles, nine inches square, so as

to break joint. This wall is six and a half feet high, and is covered by a board, *x*, which serves for a coping, and is supported, from sash to sash, by pieces of wood, *y*. In the coping boards are fixed hooks which hook into two eyes on each sash. The sashes rest upon oak posts, *z*, fixed in the ground to the depth of three feet three inches. Each post supports the ends of two sashes, which rest partly on the one and partly on the other, as at *w*. The sashes, *S*, are made of pine, and are framed and glazed in the ordinary way. The intervals between the posts are closed up, in severe frosts, by straw mats, *t*, *t*, *t*, which can be removed at pleasure. They are kept from blowing in or out by being tied to laths nailed to the posts.

This is so easily moved, that the whole of it, though fifty-eight feet four inches in length, can be removed by two men in eight minutes, and again replaced in twelve minutes. When the movable part of the structure has been taken down, there only remain the posts, the use of which no one would suspect. Besides effecting its principal object—the protection of fruit-trees, such as the peach, apricot, and vine, &c.—the structure serves, at the same time, for the production of early vegetable crops, for which purpose a border three and a half feet wide is available.

The expense of the entire structure was, at Brussels, 7*l.* 0*s.* 9*d.*, or about 2*s.* 5*d.* (or, say sixty cents) per foot run. It is composed of the following items:—

	£.	*s.*	*d.*
Carpenter's wages	1	2	11
Cost of wood (oak and pine)	2	1	5
Smith's work	0	9	5
Oil, white lead, and putty	0	13	7
Straw	0	2	4
Glass	2	5	6
Gratuity to the gardener	0	5	7
The glazing, painting, and making the straw mats, having been done by the gardener at spare times in winter, are not taken into account.			
Total expense	£7	0	9*

—*Charles Van der Straeten.*

The straw mats might be decidedly objectionable in a cold climate; but they may readily be replaced with glazed sashes.

Here we were about to be content in having offered a plan of constructing a grape or orchard house for sixty cents a running foot! when another *Gardeners' Chronicle* brought us the confirming fact, to strengthen an old crotchet of our own, that there is no need of expensive houses to produce premium fruit. The *Chronicle* says:—

"Wonders will never cease. All the great grape growers were beaten the other day by an interloper. Seldom have practical men received a more heavy fall. Great rules were violated; the wisdom of our forefathers was thrust aside like a piece of useless lumber; and maxims sanctioned by age, wisdom, and the most resolute routine, disappeared like sparkles of Captain Boxer's fireworks. About a hundred exhibitors of grapes grown in vineries in all parts of the country, produced the evidence of their skill at the last exhibition in the Regent's Park, and, melancholy to relate, were beaten by fruit from a glass shed in a London nursery garden. It is incredible, though true. The large silver gilt medal, the highest offered for grapes, was awarded to Mr. ——— Glendinning, of the Chiswick Nursery—for three dishes of grapes. Our pen shrinks from recording the event.

"The business of a nurseryman is to grow vines for sale, not grapes for exhi-

* In our money, about $35.

bition. If he grows grapes at all, it is only for the purpose of ascertaining that the vines from which he propagates are correctly named. With this end in view, the fortunate winner in the instance before us built a glass shed, or lean-to, with a border and walk at the back, and a tan-pit in front, hot water being added for the necessary heat. This back border is two feet wide; the walk, paved with flat tiles, is two feet more, and beyond this nothing is provided for the vines to grow in. As to the composition of the border, it appeared to us to consist of little more than the common garden soil of the nursery ground, and we understand that it is nothing else. Along this back border are planted the following vines, in the order in which they follow, and about four feet apart: 1. Black Hamburgh. 2. Muscat of Alexandria. 3. Grizzly Frontignan. 4. White Frontignan. 5. Black Prince. 6. Cannon Hall Muscat. 7. White Tokay. 8. Charlesworth Tokay. 9. Barnes' Muscat. 10. Mill Hill Hamburgh. 11. Reeve's Muscadine. 12. Black Frontignan. 13. Welbeck's Tripoli. 14. A sort undetermined. 15. Black Barbarossa. 16. Royal Muscadine. This, we should say, is as pleasant a party of vines, with different constitutions, as could be readily assembled.

"They were planted in the narrow back border just described, in June, 1854. A single rod of each was led up the back wall and down the rafters; and laterals from these rods bore beneath the glass the fruit in question. Fires were, we understand, commenced last March.

"We do not pretend to explain the history of the success of the glass shed. Excellent bunches were still hanging from its roof when we inspected it, and we have no doubt that the prize fruit was justly placed at the head of all others. Nor do we care to know why nothing better should have appeared in rivalry. Great parties, past, present, or anticipated, may have caused it. What we value the fact for is, that it should teach the amateur the possibility of also growing in his own small lean-to, grapes fit to take their place by the side of the first in the country. The case is parallel to that of the strawberries lately mentioned."

That will do for the present; we shall see, ere long, who of our countrymen will win the prize of a fortune by growing grapes in cheap structures. It can and will be done.

NOTES ON THE GOOSEBERRY.

BY WM. TOMPKINS, GERMANTOWN, N. Y.

THIS fruit is grown in this vicinity to considerable extent for the New York market, and I believe almost any quantity might be grown, if cultivators would pay more attention to the selection of soil, pruning, and, in fact I know of certain plantations that happen to have a favorable soil, that have produced heavy crops for several years without pruning, manuring, or scarcely any other care.

In 1845 I got a dozen plants of this fruit from a friend, and planted in my garden, which has a heavy soil. These plants were well cared for, and have annually produced large crops, without showing the least signs of mildew or decay from age. They were annually pruned, with a heavy hand, more with a view to get cuttings than to prevent the mildew.

All suckers were taken off every spring, by tearing or separating with a knife from the parent plant, in such a manner, if possible, as to detach some roots, and then carefully planted in the nursery, where, in two years they make good, strong plants. In fact, I would rather set cuttings, with all their buds, than not, for the reason that they add very much to the possibility of propagating, as the

gooseberry does not strike roots very freely from cuttings. After plants are put out where they are to remain, and the suckers taken off, as I before stated, for two or three years, they generally give in and quietly submit to the treatment—nature making no further efforts of the sort. I have old plants that have been treated in this way for a number of years, that are perfect specimens of beauty and fruitfulness, measuring three inches in diameter, and showing as much vigor as when three or four years old. In setting out large plantations of this fruit, a heavy soil, well under-drained, thoroughly manured, and deeply ploughed, should be selected, if possible. They should be planted in rows four feet apart, and three feet distant in the rows, and the ground kept in good order by the frequent use of the cultivator and hoe.

It has been frequently asserted that the gooseberry never mildews in England. From this general opinion I must beg leave to dissent, as I happen to know some facts to the contrary. In February, 1853, the writer was in England, and purchased, of a large establishment in the vicinity of Liverpool, several hundred plants. It was observed that many of them presented a singular appearance, being very much drawn and distorted, and evidently showing disease. Suspecting it was caused by mildew, the proprietor, Mr. Scirving, was asked the reason, when he frankly admitted that such was the case, remarking that the disease was much more prevalent in the vicinity of the sea-shore than further in the interior of the country, and suggested the necessity of hard pruning, and the best of cultivation, to counteract the disease. These plants were taken up and packed in moss, in a large box, and shipped on the 15th of the above-mentioned month, and reached their destination on the 15th of March following, being about one month on the passage. On opening the box, it was found that the buds were all started, and many of them in leaf. The spring being late, with much frost in the ground, we were unable to plant them till near the 1st of May; the plants, in the meantime, were securely stored in a cellar. A piece of warm, loamy soil was selected, and prepared by deep and frequent ploughing, and also well manured. The plants were then set in rows to admit the horse and cultivator. The ground was also occupied as an apple orchard, trees thirty feet apart, about twelve years planted. The gooseberries, however, were not planted within six feet of the trees. On setting the plants, they had every appearance of being in fine order, notwithstanding their long confinement, the roots and buds appearing as good as the day they were taken up. After planting, they had the best of care bestowed on them; the ground was frequently worked with the cultivator, and every weed carefully destroyed. They started finely, and gave promise of making a good growth, till about the middle of August, when it was observed that they had the appearance of having been dusted over with ashes, the extreme ends of the young shoots showing the most of it. They ceased growing, about this time, entirely; and, by the 1st of September, the foliage was all off. Thinking the reason of their doing so badly the first year, might possibly be owing to their being planted so late, and not being pruned, we determined to try different management the next year. Early in April, 1854, we gave them a moderate pruning, manured each one with a shovel full of well rotted manure, and worked the ground as soon as it was in order. This year was uncommonly dry, and we did expect that the dry weather would have a tendency to counteract the mildew; but it did not. They grew finely, setting considerable fruit till about midsummer, when they were suddenly arrested in their growth by their old enemy, the mildew; and, by the middle of September, they lost all their foliage. We now became satisfied that it would be necessary to remove them to a soil of a different texture, taking the hint from the fact of our old gooseberries in the garden doing so well in a heavy soil, we con-

cluded to give them a clay soil. We selected a piece of wet meadow land, through which flowed a small stream of water; the soil was about six inches muck, with a stiff clay subsoil. This land was thoroughly under-drained by running a drain four feet deep through the bed of the stream (it being dried up by the extreme dry weather of that year); the main drain was intersected at right angles, every two rods, by cross drains three feet deep; these drains were then pretty well filled with stones, and closed in the usual manner; the plat was then thoroughly ploughed and subsoiled, and manured with well rotted stable manure. No crop was taken of this year.

About the middle of April, 1855, the imported plants were carefully taken up, severely pruned, and planted in the plat prepared for their reception, in rows to admit the cultivator. The summer of 1855, we all know, was uncommonly wet, over a large portion of the Union; but the frequent heavy rains did not interfere with our working the gooseberry plantation; they started finely, setting quite a great deal of fruit, which they matured in the best manner; they also made strong and vigorous shoots, which continued to grow and retain their foliage till late in the season. On the whole, we have more than realized our most sanguine expectations with the imported plants, they having been mildewed before we got them, and having suffered from it two years subsequently, must undoubtedly have enfeebled and debilitated them very much.

We believe that there is not a township in the State of New York but has land adapted to the growth of the gooseberry, if a judicious selection of soil be made, the land properly prepared, and the plants pruned in a systematic manner. These things must be attended to if the planter wishes or expects to have long-lived and productive plantations; and a few dollars expended in preparing the soil in a suitable manner will never be regretted in after years, as the writer has abundant evidence of. I have watched the inroads of the mildew in gooseberry plantations attentively for a number of years; it seems to be very much like the mildew that is so troublesome in some places to the grape grower, and I believe it to be the same. New plantations of this fruit generally produce well the first few years (providing the plants are strong and vigorous when set) without pruning or much care, that is if the soil be suitable. But the enemy will, in a few years, show itself, at first slightly attacking the weaker ones, doing but little harm the first year; but, once established in plantations that are neglected, it will increase with fearful rapidity, and in two or three years ruin the most of the plants; in fact, every attack weakens and reduces their vigor, until they are fully ruined and worthless. This is the way that this scourge appears, and extends itself in neglected gardens and places that are not properly cared for, blighting and destroying both fruit and plants, as well as the hopes of the grower. But the intelligent and industrious cultivator always is rewarded for his labor by good crops of fine and handsome fruit, that always commands a ready sale in the market, at a remunerating price.

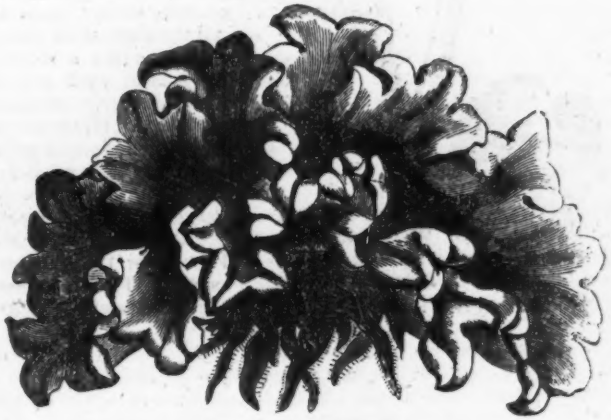
I will here state a case that came under my observation: A neighbor procured a lot of good, strong cuttings, and set them in his garden; gave them the best of care; in two years he was rewarded with about one hundred good, strong plants, which were planted in a plat of warm, loamy soil, that had been previously well prepared for their reception; there were also a few large apple trees standing in the plat, which shaded the ground some, but from their position not badly. The first season they grew finely, and gave some fruit; the second year they received the same treatment, and produced some fine fruit, with which the owner was much gratified and encouraged; also some well developed specimens of mildew on the weakest plants. The third year they set a heavy crop of fruit, and also exhibited considerable mildew (those plants that were affected the year previous being

injured the most), not enough, however, to materially injure the sale of the crop. The reader will perceive that these plants always had the best of care; they grew strongly, forming thick, bushy heads, densely crowded with superfluous wood and foliage, but never were pruned. At this time I suggested to neighbor B. the necessity of giving his plants a thorough pruning early the next spring, at the same time predicting that if he did not, the next crop would be a total failure. He remarked that he knew of certain old plants that never were pruned, and annually produced good fruit, and said, if he pruned according to my directions, he would materially lessen the amount of his next crop, and apparently put but little faith in the virtue of pruning to prevent the mildew. Last spring (1855) they were manured, and the ground worked as soon as it was in order; the foliage and blossoms came out handsomely, and they set a prodigious quantity of fruit, which, when about half grown, was attacked by the mildew, and in a few days this fine looking crop, which promised at first so well, was wholly ruined, the berries being thickly coated with an ash or brownish looking substance, which immediately stopped their growth. They also lost their leaves about this time, and their naked branches, densely loaded with miserable looking fruit, presented the most melancholy sight that I ever beheld in gooseberry culture. Friend B. is now down on gooseberry culture generally, and would not plant any more if he could get them for nothing; but I am inclined to think that the fault is more his than that of the gooseberries.

SPORTS BECOMING PERMANENT.

The preservation and improvement of the races of domesticated plants is a most interesting topic. Grafts carry the diseases of the parent with them; again divided, the disease is again propagated, and this will go on. So from sports, the means employed to preserve these peculiarities of habit may be, and often are, a most important matter, and from these, still more valuable qualities may make their appearance.

Fig. 1.



Monstrous Canterbury Bell.

Sudden alterations in the quality of seedling plants often occur from no apparent cause, just as those accidental changes, called "sports," in the color or form of the leaves, flowers, or fruit, of one single branch of a tree, occasionally break out, we know not why. Of these things physiology can give no account; but it is certain, say Lindley and others, that when such sports appear, they indicate a violent constitutional change in the action of the limb thus affected, which change may sometimes be perpetuated by seed, and always by propagation of the limb itself where propagation is practicable. A sport is a sudden change of one thing into another, different in some striking respect, as when a peach tree produces a smooth fruit (a nectarine) among its downy brood. When some Celœsea suddenly formed its flowers upon a thickened, flattened stalk, and they became more crowded than usual, we had a cockscomb, which is a "sport." It has a tendency to increase under skilful management, as was shown by Andrew Knight, when he, by a single effort, brought a cockscomb plant to measure eighteen inches across, and only seven inches high.

Fig. 2.

Monstrous Dahlia.

An analogous change is represented in Fig. 1, which is not uncommon in the Canterbury Bell, whose flowering stem becomes fasciated, and the flowers run together into a magnificent crescent-shaped head. Gardeners have not yet attempted to fix this striking character, and yet it might, perhaps, be secured as is the cockscomb.

A Mr. Salter, of London, observed among his seedling Dahlias one which produced a number of green, scaly flower-heads, but no perfect flowers. This was propagated, and every plant was covered with similar heads of scales. All the plants were vigorous, but there was not a single perfect flower-head upon any of them, so that the sport became immediately fixed. Wheat has been produced from the wild grass (*Ægilops ovata*), by watching its increasing tendency to sport, till it was not excelled in quality on the neighboring farms. M. Esprit Fabre was the patient experimenter. Thus came our varied Chrysanthemums, &c. &c.

CRITIQUE ON AUGUST HORTICULTURIST.

Pear Culture, No. 4.—Dr. Ward, in the sensible, practical articles he has written on this fruit, has laid every pear grower in the country under lasting obligation; and could they have been written six or eight years ago, when the dwarf-pear appetite of the country first began to crave the pabulum so temptingly offered to its taste, thousands on thousands of dollars, and a world of vexation and disappointment, would have been saved to those who, unwittingly to themselves, have been victimized by their attempts to cultivate them. But, American like, we have all "pitched in" to dwarf pear culture together, without knowing anything about the philosophy of the thing, and taken the *ipse dixit* of enthusiasts and theorists, who, perhaps as unwittingly as to the results as ourselves, have propagated them to an enormous extent, and recommended them for cultivation.

That *some* varieties of the pear can, in *some* cases, be successfully cultivated on the quince, there can be no doubt. They have been so cultivated in Europe for centuries. They have been occasionally cultivated in this country for some years prior to the late pear *furor*—perhaps twenty, thirty, fifty, or even more. To understand the subject, let us examine the pear, of itself, on its own stock, as a fruit. In its finer varieties it is a rare fruit, of exquisite excellence in flavor, and flourishes, permanently, only in favorable localities, and in peculiar soils. In America it is a capricious fruit, yielding well only in certain latitudes at all, and then only on favorable positions and soils. It grows, to be sure, in many places; but in how many places does it *flourish*—that is, grow well, bear *good* fruit, and live long, as a general thing, like the apple? There are the remains of old pear orchards in different parts of the United States—a hundred and fifty years old, perhaps; but they are only the remains—a few surviving veterans out of the many that were planted with them. The mass of the orchards died out a great many years ago. These, with many others planted since—old trees they are, too—still live, and bear great, almost annual crops, and, in many cases, of excellent *named* fruit. They are, however, the exception, not the rule. In many instances, too, they have grown and flourished through neglect as well as with good culture, showing not only wonderful vigor and vitality in the individual trees, but a peculiarly favorable quality in the soil in which they have stood. Many localities of the kind might be named; but as my intelligent readers will each recognize them for himself, they need not be here noted. It is sufficient to say, that after an experience of near two hundred years in America, with annual planting and constant pains-taking, *choice* pears are scarce in market, and dear in price as well as rare in private gardens and orchards, even where extraordinary pains have been taken to cultivate them. These facts are patent to every man who has any experience in the subject, and we have had as good opportunities to give the thing a fair trial in this country as elsewhere.

Probably Normandy and Belgium are the best *natural* pear countries in the world. The most of our best foreign varieties originated there, and they have been introduced here with indifferent success, as a whole. Some varieties have proved as good with us, perhaps, as there, but they are few. As a *general* thing they have failed, both on their own stock and the quince. England is no pear country. Scotland is less so. They have pears there, occasionally, but not choice ones. The best of English pears—the Bartlett, perhaps, excepted—are among our rejected varieties as table or even cooking fruits. The upshot of our observation is, therefore, that even on its own stock, the pear is uncertain as an *orchard* fruit, and, with all its contingencies, will not *pay* as an investment.

How, then, is the pear on the quince stock? and what its probabilities for the future? Under the excitement of the last dozen years, in the United States, millions of trees have been propagated, and worked, and sold by the nurserymen. They went into it enthusiastically, and with high assurance that they were doing good service to the public, and that a new era was to be established in pear culture, by which every one possessed of a spare rod of ground could luxuriate on the delicious fruit of his own trees. In pursuance of this idea, every choice variety was propagated, sold, and distributed, over the country. But, in a few years it was ascertained by the nurserymen themselves, that a great majority of these varieties were a dead failure, and, for some time past, the fruit conventions have cut down and particularized only a *certain few* varieties that would succeed on the quince. Rivers, of England, the greatest pear propagator, perhaps, in the world, names only the Louise Bonne of Jersey as sure with him, and Dr. Ward, who is, perhaps, equally good authority in America, adds but a *very few* others that he can trust.

Nor is this general failure in dwarf pears altogether the fault of the climate, the soil, or the cultivation. It goes deeper. The fault is *in the incompatibility of the pear wood and the quince wood to join their individual stocks harmoniously together, to make a long-living, luxuriant tree, and produce good fruit, except in chance and casual cases.* The quince—and no matter what quince—is a compact, small wood, with numerous small pores, of close texture and fibrous roots, working, in restricted compass, in a soil peculiar to itself. It flourishes only in limited districts of but a few of our States, and best on the sea-board and in the interior lake regions of New York. The pear, on the contrary, has an open wood, of great size, with large pores, spreading roots, a gross feeder, and grows, more or less, all over the country north of latitude 40°, and in almost any kindly soil. Now, here are two antagonistic, distinct kinds of wood, of different habits, the one hardy in almost all climates, the other *not* hardy in all the same climates which are sought to be connected as chance or design may govern, with an expectation that they will grow, and flourish, and bear fruit successfully! There can be no greater physiological mistake than in any such expectation as a rule. A large wooded, open pored quince, like the Angers, worked with a close-pored, small-growing pear, of whatever kind, *may* so join their particular woods, as to be occasionally successful in growth and bearing. They have done so; they may continue to do so; but, as a rule, as pears and quinces run, *never.* It is a violence to the nature of both. As an evidence of their distaste for each other, the common apple or orange quince of our country is pronounced a dead failure for the pear, by reason of its smaller size and more compact growth, than the Angers.

The conclusions, then, which we are compelled to draw from all this theory, as well as the experience that we have had, is, that there is no *certainty* in a plantation of the dwarf pears. It may do for *high* garden culture, with particular manures, nice pruning, and at great cost, but, for orchard culture, or general cultivation, it is a failure. See what Dr. Ward says of "pinching," "cutting back," and all that sort of thing. If men, with brains and experience enough to understand the thing, could be hired, for fifty cents a day, to do the work as it ought to be done, and the public, with tastes refined enough to appreciate the fruits, and liberality enough to pay for them, could be found after all the failures and investments of the fruit grower, it might pay; but, under existing circumstances, it cannot. Any fruit, in this country, to pay for production, must not be difficult, either in soil or culture. If so, it must be abandoned—and the *dwarf* pear is one of them.

It may be said that no fruit promises better than the dwarf pear, as we see it

in the nursery. There they stand in long, straight rows, three to six feet high, full, thrifty, luxuriant, and frequently with luscious samples of fruit upon them, enough to tempt the palate of an anchorite. That is true, and very well while they stand *there*, not exceeding three or four years from the bud. But transplant them, no matter where, and cultivate them to your best. A fire-blight strikes one, a cankered bark shows itself on another, a heavy wind thrashes off a score of them from the junction of the two stocks, and a sort of tree consumption takes a dozen more, while a few flourish and bear fruit, perhaps equal to our fullest expectations, till some accident or disease finishes them. That is the way they go; and so they can be seen in every orchard and garden throughout the country. Such is my own experience, and such is the experience of many others, who, like myself, have gone into dwarf pears on quite a large scale as well as in the more limited garden. I have grown the quince, as a fruit, for many years; the pear, also, on their own stocks. My soil is good for both. They have succeeded well as such fruits go, yet I have tried the dwarf pears side by side with the others, under infinitely better cultivation, and, in the main, it has proved a failure. And so with my neighbors. I went into a garden, the other day, filled with nice fruits. Its owner is a man of care; attends to things himself, and understands them. He had, perhaps, fifty dwarf pears, of a dozen varieties, standing around, all well trained and cultivated. A few flourished and bore fruit; some had never grown a foot during the several years they stood there; while others were dead, and dying; and that is but a sample of all around me. I fully believe, if the testimony of our dwarf pear experimenters at large could be taken, such would be the result of their experience.

It is with exceeding regret, and after much pecuniary sacrifice, that I come to these conclusions. I wish to injure no one's business, nor to diminish any one's hopes; but after years of painstaking and solicitude, I chronicle these remarks as the deliberate convictions of my own observation and trials. I would not discourage any one, who has a good soil for them, from cultivating a few choice dwarf pears, when the kinds are such as have been successfully tried; but they should be confined *to the garden alone;* and then, at a large price for his fruit, provided he pays proper attention to them, he may gratify his own taste, and that of his family and friends, to an occasional treat of a well-grown pear.

Restalrig House, and Mr. R. Morris Smith, Architect.—This gentleman mistakes me, and my meaning, in my random remarks on his houses. Mr. Smith's houses are just as good as any other architect's houses—*of the kind.* And, as I am now taking leave of these pages, for the time, as a contributor, I will, with all kind regards to Mr. Smith and his useful profession, drop a word or two on this style of building—the Italian—for American country houses. And, be it understood, I speak not as an architect, for I am not one, but as a simple looker-on, with admiration of every *real* improvement introduced in anything.

The house architecture of any country should, in the main, conform to its climate, and always to the domestic convenience of the people. It is unnecessary to say that our country architecture, previous to the last twenty years, has, as a rule, been uncouth and inappropriate to its objects. A reform has been introduced; yet, as in most other reforms, absurdities have crept in with it. Gothic, Swiss, Moorish, Norman, Egyptian, even, as well as other preposterous things, have been recommended by our house architects, inappropriate, enormously expensive, for the accommodation they give, and unsatisfactory any way. The Italian, as a style, is the most appropriate for American purposes, provided the steep roof is added, which is an absolute necessity of our rainy, snowy, and frosty climates. The shelter afforded by the overhanging roofs and verandas, render the Italian the

most tasteful and convenient for us; therefore, it is a great improvement, and should be the style for general adoption. I now speak in the common-sense view of the subject, with a due regard to economy in building, and an eye to its selling value whenever the proprietor chooses to part with it—for be it known, that no real property is more fluctuating in its ownership, with us, than "country houses." If a man chooses to indulge his fancy or taste by building an extravagant house, in a novel style, that is another thing; it is his own affair, and I have nothing to say. Such things are the *exception*. But, as architects usually have the planning of houses, and govern their style, expense, and accommodation, it is well to ascertain whether they combine the requirements of convenience and comfort in what they build, with a due economy in expense. As a rule, they do not. To illustrate: A man of comfortable estate, with a moderate family, wants a "cottage." He consults his architect. A plan is presented—fashionable, of course, and as the Gothic, and other absurdities, like Sir Lucius O'Trigger's "damns," have had their day, the Italian style is presented. Instead of a plain, tasty affair, with outer walls, admitting breaks and angles just sufficient to give it relief and effect without violence to the interior arrangement of its rooms, it is full of "hips and haws," jags and buttresses, campaniles and porches; half a dozen different roofs and elevations—a pretentious toy, in fact, *imitating* a palatial residence fit for a family of twenty thousand a year, on a great landed estate. And all this outside pretence, with its almost interminable lines of zigzag wall, is to inclose a contracted accommodation of perhaps three or four rooms, a closet or two, and a back kitchen, with a few contracted chambers overhead, at an expense of "$5,000 to $8,000!"

Now, this thing won't last. Sensible people will get tired of it after awhile—particularly when the *repairs* come. "Dormers," "flat cornices," garret cisterns, springing a leak every now and then, and spoiling the ceilings, carpets, and furniture, will give way to sensible contrivances as of old. I would not have a kitchen in the *body* of the house, as Mr. Smith intimates I would; it should be in the rear, its proper place; and the annual plumbers' bills should not amount to the full cost of all other repairs, as they usually do in ordinary dwellings. A "cottage" should be a cottage in its proper meaning, and that only. It should have an air of repose, of coziness, and convenience, so that every one passing it should say: "How comfortable!" It could be done at half the cost of the other thing. The term "cottage" is full of meaning—low walls, a high roof, wide eaves, a veranda in front, and perhaps on the sides, spread broadly over the ground, climbing plants, shrubbery, and trees. There it is. Go in and take your comfort in your own natural way.

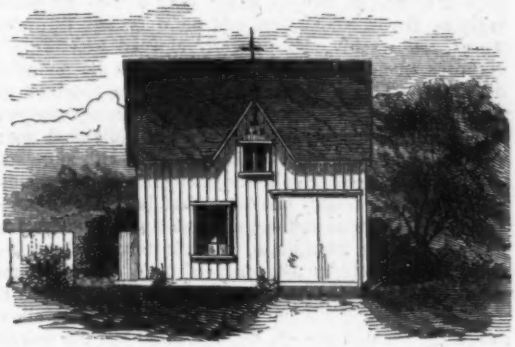
Mr. Smith hopes I am not going into a crusade against Mr. Downing's reform labors in architecture. By no means. But all Mr. Downing's architectural plans were not "reforms." He was just on the threshold of his new profession when he so unfortunately died. Had he lived, his own matured judgment and finely cultivated taste would, ere this, have thrown aside as worthless much that his early enthusiasm had recommended. Every year of his valuable life gave evidence of his chastened perceptions of the useful and appropriate in country architecture. A more appropriate style in country houses among our best architects, is already apparent, and our better houses are again approaching the square or parallelogram, with less of irregular wall, and more symmetry of proportion. *Flat* roofs, be they of tin, zinc, or copper, are not the things for American climates, *in the country;* and so our architects will find out ere long. Old things are not always to be discarded because old, nor new things to be adopted because new. The world has known something before OUR day.

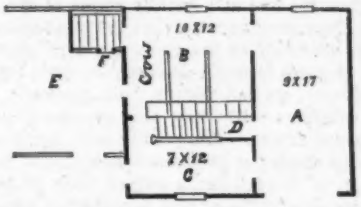
JEFFREYS.

COTTAGE STABLE.

BY W.

Below is the design for a cottage stable, in a very compact and economical form, and yet with not an unattractive exterior. It is 18 feet by 22 feet on the ground. The posts to be 13 feet high. The roof a right angle, projecting the walls one foot. The boarding to be put on perpendicularly, with close joints, and battened. A cellar beneath the whole.





Ground Plan.—18 by 22 feet. Scale.—16 feet to the inch.

Explanations.—*A*, the carriage-room; *B*, three stalls for cow, or horse; *C*, tool-room, from which is a stairway ascending to the loft; *D*, a closet under the stairs for harness; *E*, barn-yard; *F*, entrance to barn cellar, under the passage to the stable-door. A trap-door may be made in the floor of the stalls, by which to convey litter to the cellar. A passage is left open from the tool-room to the cow's stall, which, if preferred, may be closed up. The tool-room will be found a convenient arrangement for any small rural establishment. The whole may be neatly constructed for about two hundred dollars.

This design is suggested as an economical substitute for the plan presented in the *Horticulturist* for June.

Worcester Co., Mo., June, 1856.

THE DEVELOPMENT AND RIPENING OF FRUIT.

BY WILLIAM CHORLTON, NEW BRIGHTON, STATEN ISLAND, NEW YORK.

To gain a philosophical conception of this all-important topic, requires an acquaintance with the structure of the plants we have to deal with, and limiting ourselves, for the present, to fruits, we find that the plants which produce them are, with very few exceptions, of the most compound organizations—all being composed of vascular and cellular tissues, and the greater part capable of forming permanent woody fibre.

It is well known to all vegetable anatomists, that plants are composed entirely

of cells, which are of different kinds, and disposed, in various ways, to build up the general structure, that through this multitude of variety the fluids and gases permeate, to support the waste and enlargement of the integral parts, and that the periodical action is kept up by the influence of heat, light, and moisture, so long as the vital principle is present with the individual. The first burst of growth after the period of rest, is nothing more than the development of these cells or structural embryo, which were formed the season previously, and accordingly as the centralization was more or less favorably constituted, or, in other words, well, evenly, and perfectly ripened heretofore, so will the expansion be vigorous, or not, and the show for blossom be abundant and fine, or sparse and deformed. This centralization can only be obtained complete when the plant is under the most genial influences, and has the advantage of favorable circumstances. According to the constitution of each individual species, so will these requirements differ. One, for instance, would do with more steady heat than we generally possess, while another is better suited in a cooler climate; and taking these differences, we must readily conclude, that in neither of these two examples will there be an uninterrupted and equal formation of the required peculiar organism for another season's fruitfulness. In the former, there is a want of concentration, and, consequently, a deficiency of fruit, but abundance of leaves; and, in the latter, the cells will be too hastily formed to properly act the part for which they were destined, and the cell walls too indurated to allow the juices to flow freely, producing stunted growth, depauperated and few flowers, and small fruit, deficient in quality, having a tendency to dryness and austerity.

It is from the free and healthy action of the leaves that we must look for all success in fruit growing; they are the great chemical laboratories; the crude juices which are absorbed by the roots are here elaborated and changed, by the combination of gases from the atmosphere, when pure structural cells are formed. In a natural state, we find that, in fruits generally, there is more of woody fibre than in those which are cultivated; they are also situated in the climate which is adapted to their peculiarities. Here is the more hardy constitution unimpaired, and a less tendency to disease or premature decay; but, in the cultivated, we have comparatively more of the cellular, a gorged body (if the expression may be used), which has become constitutional and hereditary; consequently, there is less hardihood to resist any unfavorable influences—hence the necessity of careful attention. In cultivated fruits, generally, we have larger and more robust leaves, which, if they be favored with uninterrupted action during their natural period, will do their full share of work in storing up the extra demand for true sap that is needed for the larger and more numerous cells, or those of a character which are suitable for the after development of fine fruit, and, in a plant of permanency, of also adding to solid bulbs. An equipoise of root and leaf is necessary to support life, but, as the latter is the great store for maturity, it is more essential to our purpose than the encouragement of extreme extension of the roots. The pear or quince stock is an example in proof of this assertion; the roots of the quince do not extend so far away from the tree as do those of the pear; the spongioles are comparatively more numerous, but they are not capable of absorbing so much crude matter from their smaller proportions, yet they are sufficiently so to keep in health the more robust varieties for many years. In this case, the leaves are forced, as it were, to deposit the carbonized juices in the body of the tree in a more fluid state, and the downward current is arrested; and hence is composed the shorter but more plethoric growth, with an increase in fleshiness and size of the fruit.

The same causes that affect the leaf will affect the fruit also, for they are co-existing parts of the same organism, the latter being different only in having arrived

at that highly concentrated state to which all vegetable action tends when the circumstances have been in accordance with the want. We shall understand by this, that at maturity, nature casts off the fruit in the same way that the leaf falls when it has fulfilled its office; but there is this difference in the two: the leaf has been forming a bud in its axil which remains behind, and attached to the parent, while each receptacle of the fruit has, in the mean time, been perfecting its bud or buds, according to the structural complexity in the centre of, or upon its own body, and which becomes an independent germ, liberated from the main body when in a fit state to develop itself. It is then evident that injury to one will likewise affect the other.

Light is the great solidifier of the juices of plants, and the more a leaf or fruit is exposed to it, the more vascular will the progress of growth become. Now, this being the case, as the leaf has to provide for another period of development, it is requisite to expose it to all the influence of light that the plant's constitution will bear; but, in the fruit, as we want pulpiness and good flavor, we find a partial shade the best, so far as may be consistent with the securing of sufficient saccharine matter, and the particular aroma for which some fruits are so much prized. Generally speaking, nature has provided, in her own economy, for this particular, but there are individual cases where a partial shade would improve the quality, providing it be applied so that the leaves may be exposed. This is more particularly feasible when we consider that the leaves exhale a great portion of the fluids, and pass the more solid parts into the increasing bulk of the plant, while the fruit retains nearly all that is absorbed with which to feed and mature the seed. The fleshy part of the fruit, and that for which it is valued, is a complete organization of cellular formation like all other parts, only that the cellular preponderates. While the fruit is swelling, or increasing in size, these cells are active, and imbued with the principle of life, but, like all other parts, they have only their allotted period of existence, which extends to the ripening of the seed. After this, they become disorganized, chemical action and consequent expansion take place, and, by a beautiful arrangement of elementary particles, the carbonic principle forms sugar in solution with water, and combines with other minor products, so as to establish the varied lusciousness that is so grateful to the palate. According as each individual variety has, during the time of development, received its just mete of necessaries in food, light, and heat, so will the ultimate combination of elements be, and from such proportions will the chemical action be guided. If there has been any undue disturbing cause during growth by excessive shade, heat, cold, dryness, moisture, or sudden transitions, or from one to the other of any of these, so will it act to a disadvantage, and more particularly will this happen at the time of the last "swell." The uneven balance of these nice points is the main reason why grapes, under artificial culture, so often ripen off a bad color, and remain coarse in texture; the natives rot and fall off prematurely, and many pears become gritty and cracked, from the simple fact of there having been a sudden check to nature's action, the result of which is, the cells do not break up uniformly, the coloring matter is not duly deposited in the right parts, chemical action is arrested, and the flavor is deficient. The blistering of the leaves may be traced to the same origin, and there is little doubt but most of the diseases we have to complain of are the effect from the same cause.

We have nothing to gain by all cultivators becoming simply theorists, but this does not argue against the necessity for a more general diffusion of physiological knowledge in practical pomology, and the above few remarks are hastily thrown together with the hope that the subject may be freely discussed in future pages of your valuable journal, as the merit of the case demands.

SIEBOLD'S JAPAN PLANTS.

EDITOR OF THE *Horticulturist*.—DEAR SIR: In a late number, you refer to this fine collection, and, after naming some of the principal, inquire "who will be the first to advertise these in America?"

I have a suspicion that many of these are already amongst us. Of those you name, I have certainly seen Catalpa Rumpferii in some catalogue, and I have now before me a catalogue of one of your own neighboring nurserymen, that contains Tecoma Thunbergii, and, for a new plant, at the low price of seventy-five cents.

But you will say, why not advertise them? I will tell you, my dear sir, as I have had a little experience in that line myself. Our friends won't buy new plants of us. Believe me, the few of those who care for new plants, do not wish for them through a love for a beautiful rarity so much as for the false pride of possessing something no one else has in the country. If a nurseryman gets it, its charm is gone at once. Therefore, European nurserymen get whatever patronage is to be bestowed in this line, to our detriment. A respectable Philadelphia nurseryman, and who, in spite of all lack of encouragement, yet for his own gratification, has probably imported more new plants than any other man in the States, once told me that he had given up advertising new plants, as he never got any return for the expense.

If one-half of those who now import new plants direct from Europe, would give us any "chance," you would soon see "what you should see" in the way of advertising new things.

Soja japonica, or Hispida, the true Soy plant, has been amongst us for three or four years, having been distributed by Mr. Ernst, and the Cincinnati Horticultural Society, under the name of Japan Pea (not the Japan Pea of last year, distributed by the Patent Office).

Truly yours, AN EASTERN NURSERYMAN.

BRUGMANSIA.

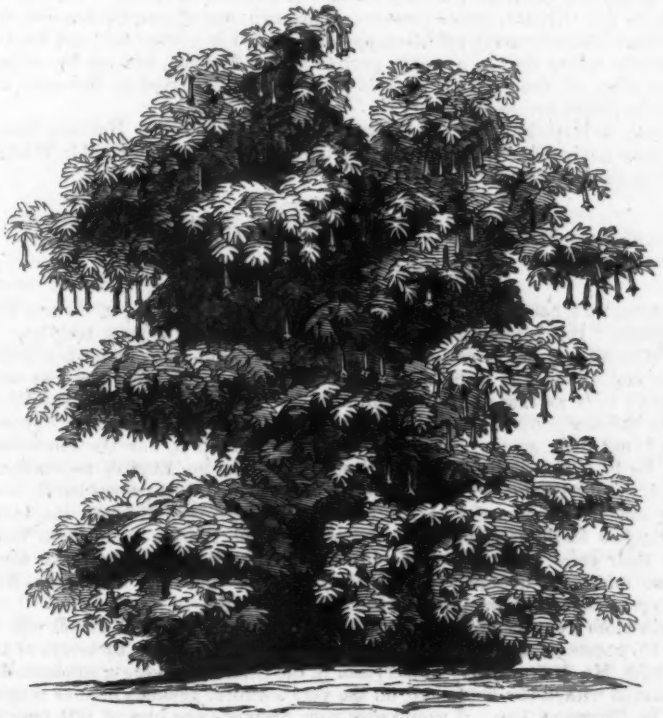
AT page 239, Vol. III., of the *Horticulturist*, will be found an engraving of the Double Brugmansia, cultivated by Downing. In the following article is described the B. sanguinea, which must be one of the handsomest objects ever introduced:—

BRUGMANSIA SANGUINEA.

A noble specimen of this fine plant grows in the pleasure-grounds adjoining Crom Castle, the seat of the Earl of Erne. It was planted in a conservatory in May, 1845, and was then about three feet high. Notwithstanding severe annual pruning, it grew too large in a few years, and was considered scarcely worthy of a place under glass. In May, 1851, I planted it in the open ground, having, the previous autumn, cut its roots three feet from the stem, and ever since it has attracted the attention, and been universally admired by the numerous visitors to this beautiful demesne. At the request of some ladies on a visit here, I measured the plant last August; it was then fourteen feet six inches high, and girthed at the ground two feet six inches, and covered an area of one hundred and sixty-five square feet. At that time it was really a beautiful plant, completely covered with flowers and foliage to the surface of the ground; I then counted one hundred and eighty flowers fully expanded, with twice that number ready to open. A gentleman told me, a few days afterwards, that he had counted above two hundred open on it. It would be difficult to calculate the number it produced last summer, but

I would say at least some thousands, as there was a regular succession from the beginning of summer, and it has now, January 5, many open on it.

It was planted in a mixed soil composed of loam, bog earth, a good portion of charred matter, rotten dung, and leaves—perfect drainage of course being secured. As I learned from experience that Brugmansia will not stand our winters without protection, ever since it was planted in the open ground I each year, in October, covered it by sticking poles in the ground, five inches apart, the spaces between being stuffed tight with grassy moss raked from an adjoining wood. A span roof is then put on, one side of which is thatched, the other covered with sashes, which has an additional covering in long continued frost; to make all sure, I put inside a few cast metal pipes, connected with a stove, but even last winter, although very severe, they were seldom used, as it requires a very great frost to penetrate through



moss a few inches thick; at the same time, arrangement for free ventilation is provided. I take the protection gradually away in March and April, and altogether in May. It may be considered that the plant is not worthy the trouble thus bestowed on it, but few could see it in summer and make that remark. The branches are shortened in before covering, or it might have been twice as tall as it now is. The accompanying representation will give some idea of the general appearance of the plant when in bloom.

There are many free flowering plants, commonly occupants of the greenhouse, which I think would succeed quite as well planted out as the Brugmansia, large specimens of which would add a new and interesting feature to our pleasure-grounds. I propose planting out a few next May, with a view to their remaining out through the winter, and getting glass structures made (so that they can be easily increased in size at pleasure, and removed in spring) for their protection. Some who have the management of gardens may remark, and perhaps with justice, that it is more easy to write about these matters than to get the necessary means for their execution; but here, I am happy to say, such is not the case, as my noble employer, who is both indulgent and generous, puts no obstacles in the way of improvement or experiment.—*Robert Dowling, Crom Castle Gardens, Co. Fermanagh, Ireland.—Gardeners' Chronicle.*

It is scarcely possible that any amount of protection, short of the hot-water pipes, in this climate, would preserve it through one of our winters, but it is a plant that lifts very easily; if taken up early, potted in a large tub, and kept over the winter rather dry, in a cellar, protected from freezing, and, on the return of spring, after all danger from frost is past, again transferred to the open air, it would no doubt succeed perfectly.

It may be remarked that the Brugmansias are often called Daturas, from the first name having been given to another tribe of plants. The Double White is a pleasing garden ornament.

THE ENGLISH BIRD CHERRY.

BY A PHILADELPHIA AMATEUR.

TAKING up a catalogue of an Eastern nursery, under the head of *Cerasus Padus* it remarks, "this is a most beautiful small tree;" and it is most truly so. Our own Wild Cherry (*C. serotina*) is a gem in its way, but the present is a diamond of the first water—the Koh-i-noor of ornamental cherries. Yet you may not see it often; it is as rare as it is beautiful. As soon might you see the Victoria Lily in the commonest duck-pond, as this beautiful tree in a gentleman's grounds; yet it is not their apathy, for nurserymen seldom keep it, nor the nurseryman's fault, for he is not aware of its real beauty. It has no English reputation, for there it deserves none. Though a native of that country, it proves hardly worthy of the soil. No sooner did an American atmosphere rush through the lungs of our English forefathers, but the present go-ahead Yankee nation was formed. Even their trees essay to partake of our spirit, and their little scrub cherries become our most honored arboricultural citizens—genuine, back-bone Know-nothings, ashamed of the insignificance of their origin.

With more frequent opportunities to observe it, our practical friends will seek more to possess it, and it will be more and more sought after by lovers of trees. I do wish, Mr. Editor, every nurseryman in the States could see a specimen I was enraptured with, a few hours ago, on the very beautiful grounds of your neighbor, Geo. H. Thomson, Esq. I would give your readers some idea of this tree, were it not indescribable; or attempt to sketch it, if I felt that it could be portrayed. Both pen and pencil failing me, I will only ask that they imagine a perfectly conical and densely furnished bush, about twenty-five feet high and fifteen diameter, so very well furnished at the ground, that for anything we see, it might be seated *on*, instead of growing *in* it. Over this cone of shining green, pear-like foliage, thousands of six-inch racemes of snow-white flowers gracefully hang scattered, saturating the air around with their fragrance, and with a sweet will, as

if they knew they had the power of conferring pleasure to the beholder, and desired no other recompense.

But all this does not constitute their only charms; scarcely have they

"Cast their wreath at Beauty's feet,"

than they invite other happy beings to minister to our joys. To the birds, their fruit presents a "dainty dish;" as it ripens, the branches are more animated by their presence, and so long as one is left on the tree, they continue to afford what has justly been considered one of the happiest associations of a country life.

Our little tree is not "hard to raise." The stones should be separated from the pulp soon after gathering, and be preserved in sand till fall, and then sown; they will appear the next spring. If sown in spring, they will not come up till the following year. Their after culture is very simple and easy, requiring soil and treatment suitable to cherries in general.

[We fully indorse our correspondent's praises. It is a desirable small tree for all ornamental grounds.—Ed.]

SEEDLING TREES.

BY THOMAS MEEHAN, GERMANTOWN, PENNA.

Raising young nursery stock is not the simple operation some imagine. It is easy enough when thoroughly understood, as, indeed, anything else is. As something that will pay, it is worthy of better attention; for who can believe that an European nurseryman can pay for the collection of American seeds, transporting across the Atlantic, raising the trees, with all the risks of importation, and then sell them to American nurserymen cheaper than they can themselves raise them? Yet this is the practice—probably nine-tenths of all the young nursery stock of America being imported.

I do not propose to go into the whole details of stock raising; and you, my dear sir, in these days of secret curculio remedies, would not wish to give to your readers, for the price of a year's subscription, information that might be worth a good nursery business to some of them; but being interested in the sale of tree seeds, I cannot but desire the success of my customers, and hence offer these remarks on the department of seed raising.

Whatever seeds are to be sown, it is of the first importance that the soil be *deep*, *clean*, *rich*, and *well-drained*. If these conditions cannot be secured, better not attempt to raise seedlings, but continue to import the young plants till they can be, otherwise the attempt will "cost more than the plants come to."

A piece of land for seedlings should be under thorough culture for at least two years previous, so that every weed shall have been entirely eradicated. It should be well manured both seasons, so that, when ready for seeding, it will be rich, light, and mellow; and, above all, it should be trenched or subsoiled at least eighteen inches deep. Thus you will not be troubled with weeds abstracting the moisture and nourishment, or calling for manual labor which does not pay; and your plants will grow "like willows," holding on to their own, even in droughts like that just passed. Rest assured, that if you starve your seedlings, they will starve you.

As a rule, all seeds grow better in a sandy soil than in that of a loamy texture; and some seeds, which I will specify before I conclude, will do only in such circumstances. Aspect is not of great importance, an exposure to the full mid-day

sun being only to be avoided, or steep slopes that are liable to wash with heavy rains.

If there be ground enough to spare, it is best to sow the seeds in rows; the seedlings get more light, and so grow more vigorously, and the ground between them can then be loosened occasionally to their advantage; but if the ground be properly prepared as I have advised, they do very well sown broadcast in beds of about five feet wide, or sufficient to enable one to get in to thin or weed if required.

So much for soil and mode of sowing generally; the next is to apply the individual cases. Many seeds will not grow if kept long out of the ground. Of this character are some maples, horsechestnuts, sweet chestnuts, laurus's or the sassafras family, and most of the oaks. These should be sown as soon after collecting as possible; they will, for the most part, grow at once, and be fine little plants before winter sets in. The oaks, even though ripening late, will often send down roots three inches long before they get frozen in. These, in sowing, do not require to be covered more than a quarter of an inch with soil. When it is not convenient to plant at once, seeds of this character should be put into sand, and kept barely moist, and as cool as possible, until all things suit.

There are other kinds that do not grow if not planted before winter. The euonymus, rhododendrons, yews, clematis, all maples and ashes, hickories, and walnuts, nettle-trees, cleanothus, and silver bells, chionanthus, dogwoods, and magnolias, usually the lindens, and viburnums. Some seeds, even if put in the ground in the fall, if allowed to get "dead ripe" before gathering, will not come up till even the second year. The hawthorns, dogwoods, and hollies, are examples. If such do not come up the first year, they should not be disturbed. I have a bed of Cratægus cordata which appeared in June, this year, and which were sown in November, 1854.

Sometimes it is not possible to get seeds to hand till the frost has closed the ground. The method is then to place them in boxes well mixed and covered with sand, and placed out in exposure to all weathers; but great care must be taken to put them out very early in spring, or they will begin to sprout, and hundreds get destroyed in the operation. This plan should not be followed if the seed can possibly be got in before winter, as they are more apt to suffer by dry weather when retained till spring.

The kind of seeds which do well retained till spring, are principally pines and coniferous plants, the pea-flowered tribe, as the locusts, Kentucky coffee, amorphas, Judas-tree, and laburnum. Pines of all kinds grow best in sandy leaf soil, in a situation not liable to be dried by the sun, or saturated with heavy rains. They must not be buried deeply in sowing; the smaller seeds very lightly raked in, and the larger ones merely sown in dry soil, and beaten in with the back of the spade. The leguminous seeds are best soaked a few hours before sowing, and should particularly be sown very early, and in deep, rich soil; they are best always sown in rows about as wide apart in the rows as peas are sown, and covered from a quarter to a half inch deep, according to size of seed.

Most of the hard-shelled seeds grow best when sown in sharp, sandy soil, kept constantly moist; the holly and halesia are especially of this kind. Every tribe of plants—almost every species—has some peculiar taste of its own, leading it to prefer a particular mode of treatment. This can only be learned by experience—our own, or that of others. In all cases, a strict watch must be set on all kinds of vermin; ground-mice are the most destructive. These are easily kept in check by using peas, soaking them twenty-four hours in water, then rolling them in arsenic, and burying them in the soil.

Crows and chickens are next in order in their destructive propensities, especially on acorns, beechnuts, chestnuts, and soft-shelled seeds generally. The remedies for these are various, depending, in their application, entirely on the feelings of the seed-grower. Many employ the gun with good effect.

MOVED TO THE CITY!

Julia has moved to the city! Our amiable competitor for early salads and fine camellias, has become entangled in the meshes of love, and for this she has left her garden!! How much of her individuality has she not lost? We were never weary of talking over our fruit projects, and our insect remedies, in vieing with our bouquets and asparagus. Our grapes and our pears made regular tours to each other's tables. What pleasure can I now take in sending a fine bowl of perpetual strawberries, or a basket of my Reine Hortense cherries? She buys her vegetables from the market! eats stale salads and radishes, and, for the sake of her lover-husband, is therewith content!

Julia and I have no longer a common topic. When I visit her, she will parade her purchased fruits, and, very probably, may substitute for them sugared bon-bons. Ah! Julia—that was a mistake to devote your affections on a cit; I am much afraid—dare I say it?—you have not married your right husband! Does *he* know the names of your favorite roses? Is not one bouquet as good as another to the man brought up on Wilton carpets in Walnut Street? Why, spring has gone and autumn come! my lost Julia, and can you consent—have you really consented—to traverse paved streets, and look out upon a garden—no, it is not a garden—upon a paved yard with only one sickly tree and a clothes-line in it? What will you substitute for the early apple-blossom, the fragrant grape-vine, and the ever-engrossing new buds that formerly engaged so much of your fond care?

If I did not fully believe your earlier attachment to the beauties of nature would surely return, I would have to write you out of my books. I *will* send you flowers, and fruits, and your favorite moss rose-buds, if for no other purpose, for the selfish one of keeping you in order for a future return to us. Shall I tell you of the bulbs you so resolutely tore yourself away from? They are peeping from their old beds to-day, and will soon be in all their panoply of glory! Your spiræas, unconscious of your absence, promise a full display, notwithstanding you have left them. The birds are singing merrily, and mating, too, but *they* do not choose the chimney tops for listeners to their notes. Your rosewood piano and gas-lights, Julia, are a poor substitute for the robin or the newly-arrived twittering wren!

You have unconsciously given me a theme, and, though I will *not* call you fickle, like the April that has passed, I must deprecate the altered mode of life your new relations have brought you into. Why, in the country, you were companionable!—are you any longer so? Will your talk be of verbenas, or your ambition be for evergreens? Can you think of mignonette, and of your old lawn, when you are surrounded by omnibuses? Alas! no. The next time we meet, you will tell me of some crowded lecture, a concert, or a party. A party, Julia, where there are no fresh flowers from your old conservatory, and where the artificial will predominate over the natural! Pray, my darling Julia, get your new man to make haste and be rich, and return to our rustic habits, our rural lanes, and drives, and walks; but, above all, to your good old garden, where your ancestors dug, and delved, and planted—where, Julia! you passed so many happy hours of careless child and opening womanhood!

Julia *was* our *beau-ideal* of an American lady. She was versed in all those accomplishments which render a home in the country a pleasant place to visit. She had read, and read wisely; understood history, music, and belles-lettres, and was acquainted with the physiology of botany. No one could so well direct a gardener, and, what was more to the

purpose, no one of her sex wielded a trowel better. She did not make her garden for a mere promenade and a show; she studied the habits of her plants, and understood them, and, of course, they understood her. Who so well could prepare a luscious evening feast from her own vines and trees? Who had such delicious cream? Were not her conserves the perfection of art? her grapes the best? And then, with what a relish they were eaten, fresh from nature's bountiful cornucopia. There was always enough, no matter how numerous the accidental guests; the resources of that house very few could understand. We passed it but yesterday; the windows were closed—the hedge has not been trimmed—the garden is all but a wilderness. Servants pluck the degenerate fruits, and a cow has the pasturage of that beautiful lawn! Julia! all this is true; can you read of it without a sigh? Can you say, truly, you are any happier for the change? I hope so—but I believe it tremblingly.

Julia, we have said, was an example; for how few American ladies there are who thoroughly enjoy a garden—who, implement in hand, and knowledge to direct it, pursue with enthusiasm the occupations which a true lover of floriculture enjoys?

Health, and, consequently, beauty, are best sought by a daily intercourse with nature. When we see a faded form, it can be too often traced to the close, unventilated room, and the absence of daily exercise. Depend upon it as a truth, the open air is the place to live in, at least two or three hours of most American days, and the indolent young ladies who will not practise either gardening, or walking, or riding *à cheval*, may expect, before they are thirty, to lose that complexion which was the charm of their youth. Do you still remember, Julia, that in the country

> "There is a dance of leaves in that aspen bower,
> There's a titter of winds in that beechen tree,
> There's a smile on the fruit, and a smile on the flower,
> And a laugh on the brook that runs to the sea?"

Julia, *come back!*

FOREIGN NOTICES.

Balloon Spiders.—During the last month, I have placed in my parlor-window several glass jars in which plants and animals are displayed, in the way that you may have seen them, on a grander scale, in the Royal Zoological Gardens. Diving water spiders (*Argyroneta aquatica*) prove very attractive. "These spiders," says De Greer, "spin in the water a cell of strong, closely woven, white silk, in the form of half the shell of a pigeon's egg, or like the diving-bell. This is sometimes left partly above water, but at others it is entirely submersed, and is always attached to the objects near it by a great number of irregular threads. It is closed all round, but has a large opening below." Into this opening the spiders convey air-bubbles and there burst them, so that their habitation is gradually expanded with atmospheric air, until they have a large, dry room, surrounded by water, to deposit their eggs in, and bring up their progeny. There is a crowd daily round my parlor-window to watch the operations of these balloon spiders. I hear the conversation of my juvenile visitors, and, when I find occasion to do so, give open-air lectures to the auditors. I have, besides spiders, fishes, beetles, and marine animals, all healthy, and kept with very little trouble. The only thing needful is to establish a balance of animal and vegetable life. If the Valisneria spiralis becomes brown, I put in a water-snail, which soon removes the confervæ; if the water becomes cloudy, I add plants or animals, as experience directs, and without ever changing the water it remains pure and bright.

If gardeners would give themselves the trouble to attend to a few of the marvellous objects around them, they would augment the pleasures of their occupations, and obtain valuable knowledge, and thus might be established a bond between youth and age; for, if once a child is roused to the pursuit of natural history, he will become a pleasant companion to grown-up people—he will become merciful, for it is impossible to love God's creatures and be cruel to them, and it is impossible to know the wonderful works of our Almighty Creator and not to love them.

Schoolmasters should, by command, instruct their scholars in the outlines of natural history. Nothing is more easy—nothing tends more to give purpose to pleasure, or to fill up spare moments more profitably.

I would not have lads made *collectors* but *observers*. Instruct them to venerate life, and to destroy it only as an act of necessity—never in wantonness—never needlessly, not even the life of a plant. C. E., in *Cottage Gardener*.

Weigela Amabilis.—In your number for May, page 139, is a notice of this plant, comparing it with rosea, which, as an early forcing pot shrub, it far surpasses, and only requires to be more known to become a general favorite, and admired as much, I have no doubt, as it has been here for the last two seasons. It blossoms freely in a 48-sized pot; its light, graceful branches, when covered with pinky blooms, make it a fit companion for the pretty Deutzia gracilis, which it much resembles in the treatment it requires. When done blooming, I cut the plants down like the latter, inducing them to make as many young shoots as possible for the next season's display. By a succession, it can be had in bloom from February up to the present month.—J. F., in *London Florist*.

Sale of Mr. Loddige's Orchids.—The first portion of this unequalled collection of Orchids took place on the 15th and 16th. The collection comprises two thousand specimens, and

these represent upwards of twelve hundred species. On the above occasion, there were 280 lots, and Mr. J. C. Stevens, the auctioneer selected to distribute them, obtained for them £717, but, as only about 260 lots were sold, they averaged but little less than £3 per lot. We have only space to mention such as realized the highest prices. *Oncidium Lanceanum*, £9. *Dendrobium Farmeri*, £8 5*s*. *D. densiflorum*, £8. *Ærides Larpenteæ*, £9. *V. teres*, £10. *Oncidium purpuratum* (new), £8. *Vanda suavis*, £10 10*s*. *Æridis odoratum maximum*, £9 10*s*. *Æ. quinguevulnerum*, £10. *Cœlyne pandurata*, £11. *Ærides nobile*, £21. *Æ. Schroderii*, £19 19*s*. *Saccolabium ampulacium*, £15; and *Vanda Batemanii*, £43 1*s*.—*Cottage Gardener*.

Planting.—The late Sir Watkin Williams Wynn planted, from 1815 to 1820, upon mountainous lands in the vicinity of Llangollen, situated from 1,200 to 1,400 feet above the level of the sea, 80,000 oaks, 63,000 Spanish chestnuts, 102,000 spruce firs, 110,000 Scotch firs, 90,000 larches, 30,000 wych elms, 35,000 mountain elms, 80,000 ash, and 40,000 sycamores.

Cheap Varnish for Wood and Iron Work.—I send you a good receipt for a very useful black varnish for wood and iron work, and which needs no boiling and risk of burning. It is—one gallon of coal tar, half a pint of spirits of turpentine, two ounces of oil of vitriol, stirred and laid on like paint.—C. G. G.

Dog-Breaking.—A third edition of Colonel Hutchinson's capital book on *Dog-Breaking* (small 8vo., Murray, pp. 328) is before us. The present edition contains new matter concerning settlers and pointers, Spanish retrievers and bloodhounds, and conveys some useful hints about game. The wood-cuts, of which there is a profusion, are worthy of the letter-press, which is saying a great deal.

Force of Growth in Plants.—The following inquiries and answers from the London *Gardeners' Chronicle*, will be interesting to many of our readers, and satisfactory to those who do not inquire: What is "vital force?" Will you, or some one of your readers, explain the *modus operandi* by which it is believed, by physiologists, the young plant gets through the surface of the ground? Is it due to the effect of a mechanical force in the plant, acting with a continuous yet infinitely slow motion, or, in other words, a mere slow thrust? [Yes.] Or is there any chemical action upon the surrounding soil by which the soil is caused to expand, and so a passage is opened through it for the prisoner ready to escape? The marvellous phenomenon of a young mushroom bursting through the hard surface of the ground, without any breaking or bruising of its outer skin, has long puzzled your constant reader, *A Bumpkin, Ross*. [Its cells multiply and expand irresistibly under the influence of vital force.]

Keeping late Grapes is an interesting subject to those who at one season have a superabundance. We find the following rational suggestions in a late London journal; though they do not differ essentially from former recommendations in this periodical, they are practical and important, and just now seasonable:—

"There is one point respecting the mode by which Mr. Sandars keeps his late grapes which deserves special notice. The grapes, when ripe, are not permitted to remain on the vines; Mr. S. considering that when once the fruit is ripe, it can be better and more economically preserved, when cut and kept in a suitable room, than by letting them remain on the vines. His practice is, therefore, with the last houses of Muscats, &c.—say towards the middle of December—to cut the fruit with the wood attached to the bunch; the cut end of the shoot

is closed over with sealing-wax, and the bunches are taken to a dry and dark room, where they are suspended from the ceiling on rods which are placed across the room, and on temporary tressels: the bunches must on no account touch each other, and will require looking over once in a week, to remove any berries which may happen to get mouldy among them. Mr. Sandars informed us he has practised this for years, and keeps the grapes without shrivelling, and in very good condition for the table, until the beginning of March, by which time the early forced grapes are ripe. There can be no doubt that after grapes are once ripe they will keep better when cut in the manner described and hung in a dry dark room where a uniform temperature of something like 40° can be maintained, than when allowed to remain on the vines. The great drawback to keeping grapes through the winter is damp and the action of the sun's rays, which, by exciting a circulation in the sap of the vines, tends to produce decay in the ripe fruit. We were ourselves forcibly reminded of this at the end of last February with a house of the St. Peter's. The mild warm weather of that month put the sap in motion, and we found it even exude from the berries, which rapidly decayed in consequence. Now had these grapes been cut previously, and kept according to the plan of Mr. Sandars, this would not have happened, and the grapes would, we doubt not, have kept till the end of March. The economy of the system must be obvious to all; the expense of firing houses with retarded grapes is great, particularly in wet weather, as air must be given largely at the same time, and this expense is increased when, as often is the case, only a few grapes are left, as they are just the same trouble. We need not say, as an additional recommendation, that when the fruit is cut the house can be used for a variety of purposes, which would be impossible when it contained the fruit. As the best plan for fruit rooms is now often discussed, we hope a dry compartment for the above and other similar purposes will be connected with it, as one of the most useful garden structures which could be built where fruit has to be kept, and which no good garden should be without."

Dwarf Dahlias.—Dwarf Dahlias may be produced by bending down the stems while young, and keeping them in the required position with pegs. When cultivated in this manner, they grow into large masses, and produce a fine effect; at the same time, they can be conveniently covered during the early autumn frosts, and their beauty retained for a much longer period.

Condensed Egg.—A process has been devised for drying eggs, so that they will keep good for any length of time. This is effected by evaporation. The yolk and white of the egg are exposed to a slow heat, and the moisture is thus driven off. The whole is then reduced to powder, and packed up in tins. The material is not necessarily kept air-tight, but may be freely exposed to the air. The powder is used in the ordinary way as eggs are, being mixed with a little water, and is thus an excellent substitute for milk on long voyages, besides capable of being used for all cooking purposes in the same way as the fresh egg. The powder will keep any length of time without fear of deterioration.

EDITOR'S TABLE.

WODENETHE.—In describing, or, rather, *attempting* to describe *Wodenethe* in a former page, we found it impossible, in a limited space, to give an idea of half its beauties. There was one little matter, however, that we must refer to as an ingenious application of a portion of the *Horticulturist*. In erecting new summer chambers for numerous guests, Mr. S. ingeniously employed some of our colored engravings of fruit to assist the frescoes of the ceilings. Groups of flowers taken from French paper-hangings, form the main features, and, at the corners, appear conspicuously a pear, plum, or peach, with their rich and correct coloring, forming a very beautiful finish when the whole is covered with a delicate varnish. The conceit worked well in practice, though, we presume, few subscribers would be willing to part these pictures from the volumes where they belong. Mr. Sargent's house is a model on which we may some time descant.

THE POMOLOGICAL CONVENTION, AT ROCHESTER, is now over; it occurred just as we were going to press. At one time, we thought of delaying our publication, in order to insert its proceedings, but found it would make confusion, and, that the *Horticulturist* having obtained a reputation of late for punctuality, many readers would be disappointed, and, after all, an imperfect and hurried report would be the result. In our next, we shall endeavor to give the particulars. The next event, in our vicinity, is the

NATIONAL AGRICULTURAL EXHIBITION, at Philadelphia, under the able generalship of Colonel Wilder, respecting which all are now on the tip-toe of expectation of a show to *outdo itself*. It is a little too much in the horse and cattle line, perhaps, for some, but its completeness in other particulars is expected to redeem this feature, even to those exclusively horticulturally inclined.

MR. CHORLTON, ON GRAPES, receives a flattering notice from the *Chronicle*, but, as usual, the editor has his fling at America. It says of our grapes: "The process of hybridizing seems to promise advantages, notwithstanding the bad quality, as we think, of the native American grapes. Their mucilaginous pulp, and strong musky or foxy flavor, render them unpalatable here." No doubt, because you have not half sun enough to ripen them. It would be just as correct to depreciate the pine-apple, because it won't ripen in the open air in that paradise of smoke, London. (*See* Mr. Chorlton's reply, page 484.)

THE PEPPER VINE.—A correspondent reminds us, regarding the Ampelopsis bipinnata, that in Torrey and Gray's *Flora of North America*, the *Ampelopsis bipinnata* of Michaux is given as *Vitis* bipinnata. It grows in damp, rich soils, from Virginia to Georgia, and west to Arkansas. Stem *upright*, or somewhat twining. Berries globose, as large as a small pea, blackish when ripe, and slightly hairy; a much handsomer plant than the *A. hederacea*.

The *Ampelopsis cordata* is the Vitis Indivisa of Torrey and Gray's *Flora*. It has a cordate, somewhat three-lobed leaf, three to four inches broad, and coarsely serrate. It grows in swamps, in the Southern States, and west to Louisiana and Arkansas. It has a long, twining, smooth stem, and a berry a little larger than a pepper-corn.

Pear-Tree Oil.—The following is going about in the papers: "From experiments lately made with the fruit of the pear-tree, an account of which appears in the Society of Art's *Journal*, it seems probable that a new substance may be brought into use, possessing considerable commercial value. According to the analysis of Dr. Hoffman, the oil expressed from the seed, when divested of its peculiar bitter taste, may possibly be made a substitute for olive oil as an article of food. In illuminating power, the oil is not much inferior to the average quality of sperm-oil."

This is very pretty on paper, but does the writer know how scarce pear seeds are? We apprehend it will be a very long time before enough can be spared from planting to make a pint of oil.

The Ugenia Ugni.—The *Chronicle* says: "If bushes of the Eugenia Ugni, perhaps the richest in flavor of all the uncommon exotic fruits, were mixed with the orange plants, they would give variety to the appearance of a house, and enhance very materially its value. In our own opinion, the Ugni, when properly ripened, ranks with the vine and the pine-apple. Its fault is that the berries grow singly, and are no bigger than Black Currants; but, on the other hand, it produces its fruit in abundance."

Soil for Orange-Trees.—Mr. Thomas Rivers recommends growing oranges more commonly than is now done, and says: "In cultivating the orange for its fruit, the first consideration is to procure the most desirable varieties; those delicious and smooth-rinded oranges we receive from St. Michael's; the Maltese Blood-Oranges, and the Mandarin, are the most desirable, as well as some sweet ones cultivated in France. The first matter of import is the soil; the best is, two parts sandy loam, from the surface of some pasture or healthy common, chopped up with its turf, and used with its lumps the size of large walnuts, and its fine mould, the result of chopping, all mixed together, one part rotten manure, at least a year old, and one part leaf-mould; to a bushel of this compost, add a quarter of a peck of silver, or any coarse, silicious sand—calcareous sand and road sand are injurious—and the mixture will do for all the fruit-trees of the tropical orchard houses as well as for oranges. Commence potting with a pot too small rather than too large."

New Peas are receiving attention in England. A correspondent of the *London Florist* thus sums up his experience with them: "With regard to early Peas, we do not consider that an earlier than Daniel O'Rourke is requisite, unless a much hardier race can be procured to resist spring frosts; but it is essential that a pea as *early as Daniel O'Rourke, with the flavor and productiveness of our best Marrowfats*, should be procured, and to the attainment of this object we direct the attention of hybridizers. For small, or even large gardens, we recommend the following sorts:—

"First Early—Daniel O'Rourke (with a succession, a fortnight after, for large gardens).

"Second Early—Harrison's Perfection or Glory, Dickson's Favorite.

"Third Crop—Champion of England.

"Fourth Crop—Lord Raglan, Hairs' Dwarf Mammoth, British Queen."

The Best Roses.—A valued correspondent recently gave us a list of the best roses. The following list is by Mr. Lane, one of the largest English growers next to Mr. Rivers: *Hybrid Perpetual Roses*—Deep crimsons, the new rose, General Jacqueminot, Géant des Batailles, and Empereur Napoleon III. Of pink and rose-colored varieties, Jules Margottin, Madame Domage, Chereau, Madame de Cambaceres, Madame Hector Jacqueler, Duchess of Norfolk, Comtesse Vaillant, Colonel de Rougemont, and Baronne Heckeren, are among the best. Of Bourbons, Apolline, Aurore de Guide, Francois Henricq, Louis Odier, Sir J. Paxton, and

Souvenir de la Malmaison. Tea-scented, Adam, Canari, Comte de Paris, Devoniensis, Gloire de Dijon, Madame de St. Joseph, Madame Melanie Willemorz, Moiré, Narcisse, Souvenir d'un Ami, and Vicomtesse de Cazes, are all very beautiful.

New Rose.—At the London Exhibition, Messrs. Standish and Noble, Bagshot, sent twelve blooms of a new hybrid perpetual rose, named Victor Trouillard, being of the rich deep shade of color of the old Tuscany, but, like Géant des Batailles, from which it was raised, the color soon fades. It is very dissimilar to existing varieties, particularly of the hybrid perpetual class.

New Grape.—One ripening with the same degree of heat as the B. Hamburg, and of muscat flavor, is valuable. The following is from the report of the London Pomological Society: "Mr. Snow again furnished a bunch of his new seedling Black Grape, raised from the Black Hamburg fertilized by the White Muscat. The berries are of good size, varying in form from round, like the Hamburg, to oval, like the Muscat. The skin is black, and, though not thick, is tough—a property which enables the fruit to hang and bear carriage well. The flesh is melting, and remarkably rich in flavor, fully charged with the aroma of the Muscat, and with an unusually high perfume. The number of seeds varies from one to two, and in some cases they are wanting. Mr. Snow having expressed a wish that the Society should name his new grape, Mr. Hogg proposed that it should be called Snow's Muscat Hamburg, which was approved of. It ripens as early, and with the same degree of heat, as the Black Hamburg."

The Fewer Seeds the More Juice.—"Watch," says the London *Farmers' Magazine*, "the intelligent vine-grower diligently thinning his grapes. He looks for produce not in seeds or grains (as the corn-grower does), but in pounds of juice. Now, he may obtain the same total quantity of syrup in his globular fruit, either by having a great number of grapes individually small, or a less number of grapes proportionately large. And, irrespective of increased market value per pound for the finer fruit, he has a potent reason for choosing the latter kind of yield, in spite of the additionally arduous labor it involves in repeated thinning. The vital power of the vines, he tells you, is not so much taxed in secreting the watery juice as in maturing the reproductive and life-impregnated seeds; and, as a small grape contains as many seeds as a large one, he husbands the energies and resources of the vines by taking a crop richest in juice and scantiest in seeds, thus realizing the greatest value of produce with the least possible exhaustion of the plants bearing it."

Far-niente.—It would be difficult to embody the idea of rural *far-niente* more fully than in an extract of a letter from a country gentleman, who unconsciously lets out the following sentiment in a communication we have lately received: "The remains of my evergreens are looking well, except where the *borer is topping them*. I have abandoned them to the laws of nature and to an ever-watchful Providence."

Gutta Percha.—The *Flore des Serres* is justly indignant at the waste and destruction of the gutta percha tree, and calls upon governments to protect posterity, whose knowledge of the article must be, at the present rate of use, only a *souvenir*. The same elegant periodical asserts that the English government has appointed an agent to introduce the cinchona or Peruvian bark tree into their oriental possessions, and that M. Hasskail has been sent on a voyage to Bolivia, to obtain the seed. Baron Humboldt informed us, in an interview we enjoyed with him at Potsdam, in 1850, that there was no kind of danger of the cinchona

becoming extinct, as its range of latitude was great, and there were forests of it of fabulous extent yet untouched. Notwithstanding this fact, its bark, from which quinine is made, has become a monopoly of the Bolivian government, and its price unwarrantably enhanced in this and other markets.

The *Flore des Serres* recommends the French government to plant the gutta percha and cinchona trees in Guyana, where the climate is propitious for both. The plan is a good one.

Gossip.—That quaint old writer, Sir Thomas Browne, in his *Urn Burial*, says: "Gravestones tell truth scarce forty years. Generations pass while some trees stand, and old families last not three oaks. To be read by bare inscriptions, to hope for eternity by enigmatical epithets, or first letters of our names, to be studied by antiquaries who we are, and have new names given us like many of the mummies, are cold consolations unto the students of perpetuity, even by everlasting languages."——Potatoes. We saw, on Saturday, says the *Newport News*, fifty potatoes which weighed fifty and a half pounds; they were raised on the farm of J. Prescott Hall, Esq., on some low, swampy land which has but recently been reclaimed. We saw them weighed, and consequently know that the statement is correct; this exceeds anything that we have heard of lately in the potato line.——Microscopic Photographs. Some microscopic photographs exhibited at Manchester, England, excited much admiration. One, of the size of a pin's head, when magnified several hundred times, was seen to contain a group of seven portraits of members of the artist's family, the likenesses being admirably distinct. Another microscopic photograph, of still less size, represented a mural tablet, erected to the memory of William Sturgeon, the electrician, by his Manchester friends, in Lonsdale Church. This little tablet covered only 1-900th part of a superficial inch, and contained 680 letters, every one of which could be distinctly seen by the aid of the microscope.——Uncommon Growth. There is hanging in our office, says the *New Haven Register*, the forked bough of an apple-tree, each part of which measures only twenty-two inches in length, on which there are *one hundred and forty-seven apples!* thicker upon the wood than human ingenuity could possibly affix. They are of an average diameter of two and a half inches, and the weight of the branch is thirteen pounds. It was cut from a tree on the premises of Mr. J. Haley, in the western part of the city, and is called the "Anti-Know-Nothing Apple," from its great yield.——Squash. A squash was on view, at Chicago, the other day, weighing one hundred and ninety-two and a half pounds!——The Garden. No land pays a higher rate of interest than the humble, despised garden.—The quantity of vegetables which it can be made to produce almost exceeds belief; and farmers may well open their eyes when told that under good management two acres of a garden will be more profitable than twenty acres of a farm as it is usually conducted. In the vicinity of cities and large towns, the raising of vegetables for market is conducted on a large scale, and is very lucrative, and even the poor man can, by his own labors at odd times, secure an abundance of food for his family, which is as good as money saved as well as earned.——Town and Country. We wish that any hints we can offer might induce our stalwart young men who are struggling for a livelihood in towns and cities, to go forth into the country, throw off the livery of conventional life, put on the frock, and, with uprolled sleeves, seize themselves the plough, and "greatly independent" live. The prolific bosom of mother earth has enough for all her children who will seek their supplies from her abundancies, for giving doth not impoverish her; and scattering her blessings but increases her means.——At the last meeting of the British Pomological Society, Mr. Snow again showed his new Black Grape with a muscat flavor. It was pronounced by all present to be a first-class sort, and it was stated that it ripens satisfactorily in the same house with the Black Hamburgh. It was named Snow's Muscat Hamburgh. A new French grape came from Mr. Rivers. It had the

flavor of the Sweetwater, with a slight tinge of muskiness, and looked as if it would make a good sort for out-of-door culture.——Those who have attended the French markets at a sufficiently early hour, will have probably lamented over the misery of the people who carry off, at a low price, the pea-shells for pottage; but they might reserve their sympathy, and would do so if they had partaken of such soup as, at a very trifling cost, may be prepared from the article. Take three quarts of water in which meat has been boiled the previous day, and place it on the fire, with a small teaspoonful of pepper, and three larger of salt (if the broth has been made with fresh meat), taking care, however, that neither ingredient is predominant. Add the shells of half a peck of peas, and a bundle of herbs, including a good quantity of chives or sweet leeks, and, if possible, a sprig or two of tarragon—a small quantity only. When the pea-shells are sufficiently boiled, pour the whole through a colander, and when the liquor is strained off, pound the pea-shells and herbs in a mortar, returning them to the colander, and rubbing through what will pass easily. Add now a small cupful of peas, two lettuces shred rather small, the more stalky the better, properly blanched, and a couple of sprigs of mint, and you will have a soup which would not disgrace any table, especially if a little fried bread is added, and an ounce of white sugar. If a thick soup is preferred, a little flour and butter, or other thickening, must be used. It is not necessary to have anything stronger than common broth as the foundation.——Irish Moss. The value of Irish moss collected at Scituate, Mass., in 1855, is said to have amounted to $4,855.——Seeds of weeds should be carefully prevented from ripening. Thistles produce an increase of one hundred and fifty fold. If plants are shedding their seeds at the time they are taken away, the very hoeing insures their safe plantation, while, if left, they might have flown away to a distance. The practice of taking out those and other pests, and throwing them in the road just as the seeds are ready to be distributed by the wind, is a most thoughtless process; they are blown back to the opened soil, or to neighboring grounds, and, instead of being extirpated, are very often multiplied.——A mode of estimating the value of milk, is by the use of an ingenious new machine called a lactoscope, invented in Paris. It consists of two tubes, one of which may be pushed into the other like the joints of a telescope, and the end of each tube is closed with glass, so that when milk is poured into the outer tube by a small opening on the side, by pushing in the inner tube a layer of milk of any thickness may be obtained. The apparatus is placed on a stand, the value of the milk is estimated by the thickness of the layer of it through which the light of a small wax taper, at a fixed distance, can be observed, the value of the milk being in the inverse ratio of the transparency; the larger the amount of fat present, the greater of course will be the opacity. The thickness of the layer of milk is measured by a scale on the instrument, and a table sold with it shows the percentage of cream to which it corresponds.——The *London Athenæum*, in reviewing the new book, "Salad for the Social," says, with severity: "The author appears to be, in fact, a pair of scissors, with this difference in favor of the scissors—that he has no points of his own.——A writer in *Frazer's Magazine* asserts: "I am quite sure that every man has a much better chance of passing through life comfortably, who can quit a city for a country life; as a nation which depopulates its rural districts to over-populate its commercial, will some day learn to its cost."——Jonah's gourd has been variously supposed to have been ivy, but it neither grows up in a night, nor is consumed by a worm. Augustine called it a gourd, and accused Jerome of heresy for calling it ivy; yet they both seem to have been wrong. It was, more probably, the kiki of the Egyptians, a plant of the same family as *ricinus*, or castor-oil; this plant is of rapid growth, and has such large leaves, that the people of the East plant it before their shops for the sake of its shade.——Cinnamon was so much esteemed by the ancients, that Cleopatra carried it into her sepulchre with her jewels; it was kept, in wooden boxes, among the rarities of kings, and only employed for unguents, and on great occasions.

A French Catalogue of D. Danvesse, Orleans, France, just laid on our table, contains a great variety, but, as is too usual with these French articles, the prices are enormously high; it would seem to be a retail list of no use in America, and we advise the sender to save his postage, and us any further paragraph.

Not so with the Catalogue of *André Leroy's Nurseries*, at Angers, France, the source whence is derived such quantities of seedling trees that our periodicals are constantly discoursing of. The sole agent in America is Mons. F. A. Brugiére, 138 Pearl Street, New York, by writing to whom you may know how to buy trees in quantity at the price of beets or carrots!

Answers to Correspondents.—(Calla.) Some manuscripts were lost out of our wagon on its way to the printer's—a most unusual occurrence; and, amidst much else that was useful, all our elaborate answers to Calla's numerous questions, and several valued communications, have been deposited in the road. She will have to excuse us, for the questions were lost with the answers, not more to her regret than our own.

Indisposition, and absence in search of health, must serve, with regret, for many apparent neglects of valued correspondents this month.

Wm. Stewart & Sons, of Quincy, Illinois, have forwarded us a very clever "condensed catalogue of fruit and ornamental trees, &c. &c."

Strawberry Plants.—We are indebted to several valued correspondents for new strawberry plants for experimental culture, of which reports will be made in due time. Mr. Saul, of Washington, Mr. Thorburn, of Newark, Mr. Mish, of Harrisburg, Mr. Hooker, of Rochester, will accept our thanks. The Hooker's Seedling notice, *in small type*, in our last number, should be referred to by those planting strawberries.

Stone Hill Potatoes.—Mr. Bulkley's Stone Hills, which we promised to report upon, have produced a wonderfully fine crop of *large* and *excellent* potatoes, never exceeded by any in our experience.

Mr. J. R. Gardner, in an early number.

(A. B. C.) It *is* polite to inclose a stamp when you request an answer from a correspondent on business exclusively your own.

Translations from the German.—Some valuable translations from German periodicals, shared the fate of Calla's questions and answers, very much to our disappointment. We hope to hear from the translator again.

"Stanley's Early" Apple.—Fine specimens of this apple, known in Ohio, where it originated, with another kind we do not know, have been sent us by Mr. James S. Lippincott, of Haddon Lodge, near Haddonfield, N. J. The Stanley's Early may safely be added to any catalogue as "excellent." Mr. L.'s complimentary letter is appreciated.

Auburn, N. Y.

Mr. Jay Smith: Will you please confer a favor on numerous readers of your publication, by giving, in your next number, a description of the manner of making cold frames, to be used for the purpose of preserving cabbage, cauliflower, and other plants, through the winter? And also, whether you think that tomato and pepper plants could be preserved in the same way—that is, in cold frames?

Truly, Wm. A. Bartlette.

A few boards, nailed together, of any required length, and about five feet wide, will make a convenient frame, the back being about eighteen inches high, and the front nine. Shutters to cover them may be of half-inch boards, nailed together so as to be about three feet

wide. They may be kept entirely covered in frosty weather, lifting or taking them off on fine days. The sides of the frame may be better protected with a bank of soil.

Tomatoes and peppers cannot be preserved in cold frames.

RUSHVILLE, O.

J. JAY SMITH: Please answer the following inquiries. Allow me to say, that your magazine is a very welcome visitor here. Though my *conservatism* was slightly disturbed by the change of editors, I was soon perfectly satisfied.

What are the relative merits of the Manetti, Michigan, and Boursalt Roses as stocks, on which to bud the Hybrid Perpetuals? (1.)

Would it do to take cuttings, in November or December, from strong Manetti stocks, budded this fall? (2.)

Is it a good practice, in light soils or any soil, to earth-up young trees in the beds—say in November, so as to cover the bud during winter? (3.)

Where can Mr. Coxe's book on *Fruits* be obtained, and at what price? (4.)

Very respectfully, R. J. BLACK.

(1.) They all make good stocks. We prefer them in the order named; besides, the Manetti is more easily raised.

(2.) Cuttings will do well as late as November, but better in October.

(3.) Yes.

(4.) Coxe's book on *Fruits* can only be obtained at second-hand book-stores, auctions, &c. It is out of print.

THE MASSACHUSETTS HORTICULTURAL SOCIETY held an exhibition at Music Hall, the middle of last month, which gave great satisfaction to its numerous attendants, and a large amount of prizes was distributed; one of forty dollars, to Miss Ellen M. Harris, for the best floral design. The evening exhibitions were highly successful; the galleries crowded by ladies looking at the fruits and flowers, and listening to the Germania Band. Admiration seems to have been the order of the day from all who witnessed this display of a most enterprising and knowing Society.

THE PENNSYLVANIA HORTICULTURAL SOCIETY.—The twenty-eighth annual exhibition was held on the 16th, 17th, and 18th of September. The city placed one of the public squares at the Society's disposal; over this square the Society erected an immense tent made for the occasion, and made the arrangements for a brilliant display with a profuse liberality.

Since the Society commenced offering premiums for collections of plants as well as fruits and vegetables, now three years ago, the attractions of the exhibitions have annually increased. "Bare-legged" plants are rarities, and, in their place, well cultivated specimens of the choicer kinds show to greater advantage.

The premium of $20, for the best twenty plants, was awarded to Mr. Pollock, gr. to James Dundas, Esq. Various kinds of Allamandas were conspicuous in this collection, and are very useful summer blooming plants. The only striking novelty in this collection was the Philodendron pertusum—a plant of the Arum family, with large, leathery leaves, having at the ends of their lobes the same shorn-off appearance those of the Tulip-tree possess. In Mr. Robertson's collection, Begonia xanthina, with numerous yellow blossoms, was an object of great attraction.

An interesting feature of the exhibition was the variegated plants, several collections being shown. The variegated Hydrangea was, perhaps, the most conspicuous. In Mr. Buist's collection, we particularly noticed a very handsome Dracæna; D. Nobilis, with beautiful veined foliage.

A collection of sixty-five species of coniferous plants in pots, from Mr. Sherwood, afforded

a chance to many of becoming acquainted with rare kinds; and a bouquet design by Mr. Raabe, of 150 species of grasses, all very neatly named, showed how beautifully so dry a subject as abstract botany can be combined with art by a person of fine taste.

A display of Monthly Carnations, now getting deservedly popular, as their cultivation becomes understood, was shown, in fine order, by Mr. James Thomas, from Mr. Withams.

Perpetual blooming plants should be freely encouraged, and, in this connection, two roses, by Mr. Pentland, of Baltimore, were much admired. One, Beauty of Green Mount, a noisette, with the rich crimson of Souvenir d'Anselme, with more numerously clustered flowers. The other, with the pure white of Aimée Vibert, on the vigorous growth of a Jaune des Prez, also a Noisette, and named Woodland Margaret. Of the numerous collections of roses, a rather new American seedling, Isabella Gray, was the chief attraction. It is the yellowest and sweetest of the Sweet Yellow Tea or Noisette Roses.

There were several new competitors on the Dahlia list—Grand Duke, lilac; Sir F. Bathurst, plum; Summit of Perfection, maroon; Beauty of the Grove, bronze, with purple tip; Ring-Leader, plum; Napalese Chief, crimson, tipped with pink; and Mrs. Wentworth, lilac, we noted as about the best.

Of the miscellaneous plants, there was little new. Weigela amabilis, valuable as a continual bloomer, Phlox criterion, a striped variety of Phlox Drummondii, and Lantana lutea superba, with yellow flowers, were most attractive.

The fruit department was well represented. Fine contributions, coming from Boston, Lancaster, Moorestown, and other distant places. Mr. Lazenby's Black Hamburg Grapes, the bunches weighing nine pounds and over, were better colored than usual.

Most of the new grapes were on exhibition. The Concord (we understood, raised under glass) were about half the size of Isabellas hanging beside them, and, we were informed, scarcely equal to them in flavor. It is said to be valuable in the North, by being earlier than that kind.

The competition for the vegetable prizes was particularly brisk, room being with difficulty provided. It is gratifying to find, by the increased number of competitors, and the superior qualities of the productions exhibited, that gardeners and their employers are alive to their interests, in supporting the Society; the one by the honor, if not the profit, accruing to them; the other by the increased stimulus given to the gardener to aim at excellence in all things.

The London Horticultural Society's Gardens, which were about to be sold to meet the debts of the Society, are to be preserved, and the debts provided for by donations, new fellows, reduced expenditures, resignation of officials, and a contract to keep the gardens up for £1,200 per annum. All lovers of horticulture will rejoice to hear this.

The Scientific Convention, at Albany, has done itself great credit at its late meeting, and in the opinion of our readers, did nothing of more general interest than to recommend the government to take measures to protect the great California trees. This, we trust, will be done; they are not numerous, and are unique. Late reports from Europe are discouraging as to their healthy growth abroad—another inducement to protect what we have.

Exhibitions.—The whole country is alive, this month, with exhibitions. There will be an amount of information thus disseminated that no one man can appreciate. To all we say, make your efforts at utility and beauty, so as to benefit the greatest numbers.

The Orchard-House.—We are indebted to Mr. Thomas Rivers, of England, for the fourth edition of his *Orchard-House, or the Cultivation of Fruit-Trees in Pots under Glass*, London, 1856, from which we shall make extracts for the benefit of readers.

Valuable Crop.—The crop of blackberries on Long Island was sold, in New York, for about $5,000. The groceries paid 6¼ cents per quart, and, at this price, some persons received for blackberries sold from their land, more than the land itself would bring if put up for sale.

The old Stuyvesant Pear-tree, in New York, aged one hundred years, bore a bushel of fruit this season.

Nectarines.—Mr. Caleb Cope will receive our thanks for some Stanwick Nectarines, every way what they ought to be, and creditable to the grower. He has four trees, and fine crops. Accompanying them were some very good Red Romans. We expect, after the entire success of Mr. Hunnewell and Mr. Cope, to hear of success elsewhere.

Samuel Miller, of Calmdale, near Lebanon, Penna., sends us a new seedling grape about the size and appearance of the Isabella, and, we think, as good. He says:—

"This seedling was raised from seed sent me by Mr. Longworth, of Cincinnati, Ohio, five years ago. The vine bore about a dozen bunches last year; this season it has had, perhaps, fifty or sixty bunches. The vine has been perfectly hardy since its infancy; a strong grower, and will, with good cultivation, far exceed those sent you, in my opinion, as the vine has thus far been sadly neglected.

"You can best judge of its quality, and whether it is worthy of a place among the good grapes. (It is.—Ed.) In the same box you will find a bunch of grapes from a friend.

Yours, truly, Samuel Miller."

Mr. Mish, of the same town, sends a bunch of Longworth's Ohio, or Cigar Box, and some very *fine* Beurré Diel pears. The grape we do not think much of for the table; the pears, excellent. A new white seedling grape, from Mr. Brandegee, is excellent. The raiser, Wm. Brochsbank, Hudson, N. Y.

Beardless Barley.—J. W. Briggs, West Macedon, N. Y., sends us specimens of beardless barley, and will do the same to all who inclose a stamp.

New Brighton, Staten Island, Sept. 4, 1856.

J. Jay Smith, Esq.—Dear Sir: Some time ago, a copy of my book, "The Grape Growers' Guide," was sent to Dr. Lindley, the editor of the London *Gardeners' Chronicle*, which he has noticed somewhat favorably, and in that notice he has hit upon, perhaps, the two most philosophical points, considered in a prospective view, both of which are in connection with mildew on the grape-vine. The first is the recommendation to improve our natives by hybridization with the European kinds, so as to gain the better quality of the latter, and yet retain the hardy constitution of the former. This he entirely agrees with, and advises the Eastern vineyard cultivators to accept as a probable means of extirpating the destructive pest that is now destroying their crops. If we have given to Europe an idea that shall ultimately be successful, we shall be gratified with the service done, and hope, in the mean time, that it may so turn out.

With regard to mildew as it now exists there, and the kind that we have all along been troubled with in out-door culture, it is presumed that both are identical. This the doctor denies in the following language: "In connection with the present subject, it is not a little curious to see how the American gardeners are in a complete state of confusion as to what is the true vine mildew, arising from the attack of oidium. Mr. C. says there are two diseases in the States, one appearing in the form of brown spots, which eat through the leaves; the other like a 'fine and delicate hoary mouldiness.' The first he supposes to be European mildew, while his account shows unmistakably that it is the second. Let us hope that

when Mr. Chorlton sees this remark, he will make the American public aware of the mistake." Now, in my description of this first, it is stated that the earliest indications of it are these brown spots, and that "afterwards are seen small white patches of the soft and delicate fungus attached to the *under* side of the leaf." Further: "These white patches are the fructification of the parasite." As it appears to me, he has only read the description so far as the first indications are mentioned, and then skips on to the next paragraph, which speaks of the "fine and delicate hoary mouldiness of the second kind." As to this part of the matter, both might have passed by the same words, but I was very exact in trying to explain, so far as words could do, the minute differences, and was particular in stating that the first sort "penetrates to the berries by the rhizoma, or spawn, and makes them in appearance like a diseased potato in the first stage of infection;" while the second lives entirely upon the epidermis (which it destroys), procreates simply by the increase of cells laterally, and is found on the upper side of the leaf, thus showing that there is a higher organization in the former than the latter. It is possible that we may be in error, but I would say, with all due deference to his superior abilities, that Dr. Lindley has failed to show it. The very sensible article by Mr. J. Fisk Allen, of Massachusetts, on this subject, in the August number of the *Horticulturist*, would seem to contradict the doctor's assertion, for your correspondent there states, that, "in the Agricultural Report of the Patent Office for the year 1853, page 311, there may be found an engraved illustration of this mildew fungus. It appears in a communication to the State Department from Nicholas Pike, Consul of the United States at Oporto. This is a correct representation of the American mildew, and leaves no room for doubt as to the identity of the two species." And further on: "That in the short space of one day, the under side of the leaf will be covered." This illustration I have seen, and agree with Mr. Allen. It is also sustained by the evidence of other close observers, and, although the wording of the communication might have been more minute and scientific, there is sufficient in it to show that there is little or no difference. Here is certainly evidence that what I have supposed to be European mildew is so, and also, that it is the same which we are troubled with during the months of July and August. If Dr. Lindley had been more comprehensive in his explanation, and noticed the peculiarities with sufficient attention, it is very probable that we should have received some benefit from his remarks; as it is, there is nothing left for us but to think that he did not read the description with sufficient attention. Respectfully yours, WM. CHORLTON.

J. JAY SMITH, Esq.—An article is going the rounds (as quoted from the *California Farmer*), which expresses the opinion that "coffee will be grown in the State of California, for their own consumption, and also for exportation." It is well to put so erroneous an idea at rest, by stating, that in no part of the State of California will the coffee-tree survive the winter. It is among the most sensitive of all trees to cold, and there is no locality in our country where it could be cultivated, except on the extreme point of Florida. It is not cultivated in Mexico, and, owing to the general altitude of that tropical country, it would only survive on a narrow strip of land bordering on each ocean, and in some parts of Yucatan.

WM. R. PRINCE.

TEMPERANCE AND THE VINE.—To J. J. SMITH, Esq.—DEAR SIR: In your May number, I observe that my friend, Jeffreys (may he live a thousand years, and his shadow never be less), in his "Critique," has doubts about our native wine being an aid to the temperance cause, and cites the *abuse* of it as a reason. Now this is scarcely fair, for they have *very sour cider* in his vicinity, and his neighbors should be excused for an extra indulgence, when they get a good glass of native wine.

If it is possible for us to become a strictly temperate people, then Jeffreys is right, and I

am wrong. But otherwise, then the least hurtful potations we can introduce and make customary, the better. I sincerely believe, from what I have already seen, that our native wines will meet this object. This is our experience here, and the fact is fully sustained by all who have visited the wine countries of Europe. Quite an impartial opinion, you will say, coming from a wine-grower!! It is not every doctor, however, that likes to take his own medicine, and I confess, for my part, that I prefer a cup of buttermilk at dinner, in summer, to the best glass of wine that ever sparkled on the board. But tastes differ, and many would prefer the wine.

In looking at this matter in all its bearings, I am disposed to adopt the views of honest *Father Mulrooney*, expressed, some forty years ago, to his flock in a western town.

The good man had a hard set to deal with—a frollicking, rollicking, drinking congregation as could be found in the suburbs of any city, and they fairly worried the life out of him, as he said. At last, after a strong temperance exhortation, which he feared would have no effect, he closed as follows: "Now, I am afraid all this admonition will be thrown away on you hardened sinners. You know you have been vexing the very life out of me, you *haythen*, and sorra the bit do I believe you will heed me; so, if you *will* drink, and make brute bastes of yourselves, go to *Barney Coyle's;* he is a dacent lad, and keeps the best liquors in the town."

Let us apply this to the native wine. R. BUCHANAN.

Cincinnati, August 19, 1856.

THE HONEY PEACH OF CHINA.—For the history and a drawing of this fruit I refer to the first volume of the *Horticulturist*, page 382. I obtained from my friend Mr. Chas. Downing, about three years ago, cuttings from the seedlings, and on the 30th July last, succeeded in maturing three on the tree; it corresponds very nearly with the plate, with the exception it has a sharper point, and is not quite so large, which I attribute to the excessive drought we have labored under this summer, scarcely any of our peaches being half the ordinary size; the tree, or more properly speaking, the bush, is hardly thirty inches high; but I think with ordinary seasons the tree as well as fruit will be much larger. Around the pit the flesh has the appearance of a very ripe fig, half dried, and is as distinct and marked in its taste as honey itself; one or two would be as many as any person would desire to eat at one time. I flatter myself I have been the first to fruit it in America. I exhibited it on yesterday to the fruit committee of our State Agricultural Society; all agreed it was the most remarkable, distinct, and richest peach they ever tasted. I consider now that with my two varieties, the Chinese cling and honey peach, I have the rarest and the best peaches on the continent. HENRY LYONS.

Laurel Park, Columbia, S. C., August 2, 1856.

Horticultural Societies.

PENNSYLVANIA HORTICULTURAL SOCIETY.—The stated meeting of this Society occurred, at the Concert Hall, on Tuesday evening, August 19, 1856, Dr. W. D. Brinckle in the chair. Premiums were awarded as follows, viz:—

Committee on Plants and Flowers. *Collection of twelve*—to John Pollock, gr. to J. Dundas; for the second to Chas. Sutherland, gr. to J. Anspach. *Collection of six*—to Mark Hill, gr. to M. W. Baldwin. *Specimen Plant*—to J. Pollock; second to C. Sutherland. *Table Design*—second to J. J. Habermehl. *Basket*—the same; second to Mark Hill. *Bouquets*—best pair to Henry A. Dreer; second to J. J. Habermehl. *New Plant*—three dollars, for a fine Allamanda Sieboldii, first time shown, to J. Pollock; one dollar, for Achimenes Ambrosie Verchaffeltii, pretty, to Robert Buist. *Special*—two dollars to H. A. Dreer, for a fine basket; to R. Kilvington, for two table designs; to J. J. Habermehl, for fine German Asters.

Committee on Fruit. *Grapes*—three bunches of a black variety, to J. Riley, Asylum; second, William Grassie, gr. to J. Tucker; for three bunches of white to J. Riley; second to Chas. Sutherland. *Plums*, twenty-four specimens of six varieties—to J. McLaughlin, gr. to J. B. Baxter. *Pears*—the same. *Apples*, best three varieties—to S. W. Noble, of Montgomery Co. *Special Premiums* of one dollar to G. W. Earle, for plums; to J. Lindsay, for Bolmar's Washington Plums; to M. Hill, for two new varieties of watermelons.

Committee on Vegetables. For the best display, by a market gardener, to A. L. Felten.

On motion, ordered that the President appoint delegates to attend the sixth session of the American Pomological Society, to be held at Rochester, New York, 26th of September.

Ordered, that the thanks of the Society be tendered to Dr. Frederick Leclare, an honorary member, for his treatise on the Cure of Cholera Asiatica.

SEVERAL FINE PLANTS WERE EXHIBITED.—*Plants* from James Dundas's gardener.
From M. W. Baldwin's. The new Veronica Imperial Blue.
From John Lambert's. Fine German Asters.
By Robert Buist. *New*—Achimenes Ambrosie Verchaffeltii, a white, striped with violet and yellow eye, very pretty cut flowers of Allamanda grandiflora; with many designs for baskets and bouquets from various members.
Fruit, &c.—By Saml. W. Noble.
By Robert Buist.
By A. L. Felten.
By Mark Hill. *Melons*, Odell's large white and orange.

Calendar of Operations.

OCTOBER.

BY WILLIAM SAUNDERS.

VEGETABLE GARDEN.—Lifting and storing away the winter root crops will require attention towards the end of the month. Beet, salsify; carrots, parsnips, &c., keep best covered with sand in a dry cellar, and are at all times of easy access. Choose a dry day for lifting, and use precaution not to break the roots more than possible, especially with the two first mentioned; the leaves of these should not be cut so close as to wound the root. Parsnips are frequently left in the ground, and taken up as wanted, but, where the winters are long and severe, they should be housed.

Horseradish may now be taken up and replanted, the largest roots stored for use; they will keep till wanted, if treated as the others.

Spinach should be thinned out, that the plants may have room to extend; they will keep over winter better when thus treated, than when allowed to crowd and grow up weakly. Turnips must also be thinned, if good bulbs are expected.

Mushrooms.—Many persons who have a fancy for these are deterred from attempting to cultivate them from the supposed difficulty. They are so easily raised, that any one having the convenience of a dry cellar may have them in profusion. The requisites are, short stable manure, and good mushroom spawn. The manure must be prepared by being frequently turned, so as to prevent excessive heating, and the bed made from six to sixteen inches in thickness, according to the temperature that can be maintained. Where the temperature can be kept up to 60°, the former thickness will be sufficient. The latter thickness will generate sufficient warmth of itself. Insert the spawn when the heat is about 80°, and cover with two inches of soil, firmly beaten, all over the bed. A covering of straw will be necessary should the heat decline. Under the staging of a greenhouse, if protected from the drippings of the pots, or in large pots or boxes, mushrooms may be grown without much trouble or expense.

FRUIT.—*Raspberry* plantations may be made this month; the old plants should be pruned and got in readiness for laying down against winter.

Strawberries may yet be planted on dry grounds; on strong, undrained lands, they will be thrown on the surface by the action of frost, unless covered with tan bark or an equivalent; there is no better mode of arranging than planting in rows three feet apart, and twelve or sixteen inches between the plants. Those in pots must now be protected from heavy rains, and exposed to the sun; it is important that the buds be perfected; the runners ought to be kept down, both on those in pots and in the ground.

Grapes.—These will not require much attention at present; the side-shoots and laterals may be shortened a little previous to the regular winter pruning. Do not cut the fruit too soon. Many prefer the Isabella Grape after it has been exposed to slight frost.

GREENHOUSE.—In arranging the plants in their winter quarters, those of more tender nature should be placed at the warmest end of the house; these will include torenias, ixoras, leschenaultias, stepanotis, cyprepediums, &c.; and further to insure their safe keeping, they should receive no more water than will barely keep them from wilting. See that the drainage is perfect; this is a great point with all potted plants at this season. Young, growing plants for early spring flowering, as fuchsias, calceolarias, cinerarias, pelargoniums, and similar articles, should also have a place in the warmest portion of the house, and near the glass. The front shelf is a good situation for these. Temporary shelves, fixed near the roof, at any convenient point of its surface, will be found useful in winter, and present a most favorable position for young plants. If not over a foot in width, such a shelf will not materially interfere with the growth of plants on the lower staging. Azaleas and camellias that indicate early flowering, may also be placed near the heat, to hasten them into flower. The coldest

end of the house (that is, the end furthest from the source of heat, which can be kept a few degrees colder by admitting more air at that point), will be filled with the main plants of camellias and azaleas, with acacias, heaths, epacrises, &c. New Holland plants—boronias, polygalas, eutaxias, daphnes, and others—will occupy an intermediate position. Stock plants of verbenas, heliotropes, &c., can be stowed on the front or side shelves. The less growth these make at this time the easier they are kept; keep them on short allowance of water. Keep the house aired a little at night, unless during storms or indication of frost; water early in the morning, and have the house dry towards evening. Dispense with all kind of shading; the object now is, to harden and ripen the plants, that they may stand the effects of winter.

Flower Garden.—Bulbs of tulips, hyacinths, narcissus, &c., should be planted now; choose rich grounds, and cover at least two inches. A handful of dry sand below each bulb will facilitate their rooting, and a slight covering of manure by and by, will protect them during winter.

Hollyhocks.—If not already attended to, the seedlings may now be transplanted into borders for flowering next summer. A deep, rich soil will give strong plants and profusion of flowers. Few plants produce so striking an effect in masses as the hollyhock. The improved varieties are as large and double as dahlias, and the colors much superior, both in depth and variety.

Violets, for winter flowers, may be transplanted into frames; the frames should be set in an elevated dry site, and the soil well broken up and pulverized. Lift the plants carefully, and press the soil firmly around them; finish, by giving a thorough watering and shade from sun for a few days; they will start to grow at once, if the frame is kept rather close for a week; afterwards, admit air gradually, and ultimately remove the glass altogether until frost.

Mignonette, in pots, should be thinned to four or five plants to a pot. Be careful in the application of water as the days shorten; they are liable to decay if too freely watered during cold, dull weather.

Alterations, such as making flower-beds, repairing, or laying down box edgings, gravelling walks, &c., can be done much more advantageously now than in the spring; the soil is in good working condition, and it is generally a season of more leisure.

Pleasure Ground and Shrubbery.—Planting deciduous trees should be proceeded with by the middle of the month, or as soon as possible after the fall of the leaves. Evergreens should be left until April. It is too late for them to make sufficient roots to supply their large evaporating surfaces, unless they are removed with plenty of roots.

The arranging of ornamental trees should be well studied before commencing to plant. A few studies for reflection may be enumerated.

1. Plant evergreens with a view of forming a distinct winter scenery when deciduous trees are leafless; principally effected by keeping them somewhat distinct, and arranging the various shades of green which such trees present.

2. With reference to the development of individual or combined beauty. The former, by placing single specimens in prominent situations; and the latter, twofold; by variety of foliage alone, and, secondly, by variety of outline, or general habit of growth.

3. The gradual blending of evergreen and deciduous trees into a whole, so as to avoid violent contrasts, by using trees having both properties combined, as the European and American larches, and deciduous cypress.

4. Giving depth to limited views by marginal undulations, and increasing the effect by placing heavy dark-colored foliage in the recesses, as the horsechestnut, Norway and sycamore maples; and light colored or small foliaged trees in front, as the birches, eleagnus, &c.

5. An arrangement with reference to spring and early summer flowering trees, as the scarlet maple, wild cherry, Judas-tree, catalpa, paulownia, halesia, laburnum, locust, horsechestnuts, chionanthus, cratægus, koelreuteria, magnolias, &c.

6. Contrasting the various shades and tints of foliage before the fall of the leaves in autumn. Scarlet and sugar-maples, sweet and sour gums, tulip-tree, sassafras, bitter-nut, and other hickories, scarlet oak, and dogwood, are some of the most prominent in this respect.

7. Imitation of natural scenery by planting at irregular distances, especially the effect of two or more planted three or four feet apart; the effect of two or three stems apparently from one root is also worthy of notice.

Lastly, and of much importance, filling up the outskirts with thick shrubbery, the better to define the plantations, and form a decided distinction between them and open spaces of lawn.

These are only a few of the many features that tree planters ought to have in view, a knowledge of which is indispensably essential to the development of landscape gardening.

MANGOSTEEN.